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LOCAL AND NATIONAL PREVENTIVE MEASURES AGAINST CHOLERA.*

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The April speech of Mr. Gladstone in Parliament has several sentences in it quite as applicable to our relation to cholera as it was to the relation of England to Russia. Let me, with very slight abbreviation, quote a few lines of his language.

"Let us consider," he says, "what is the present position, and what is the mode of conduct adapted to that position. It is not a case of attack. The question before us at this moment is a simple and very narrow one. What we present to you is a case for *preparation*. Is there or is there not any case for preparation? Look at the facts before us. Try them by that test and by no other. Enter only into that part of the case which is prudential. Upon that aspect of the case and that alone—we say it is a case for preparation. The facts within your knowledge are enough to make it your bounden duty to prepare."

It is, I presume, because of such sentiments and convictions, that this Society has this evening invited papers and discussions about Asiatic cholera.

It goes without the saying, that the first measure for preventing the spread of cholera is to prevent its arrival in the country. The best way of doing this is to prevent its setting sail, or so guard against it during the voyage of vessels from infected ports to this country, as that any risk therefrom shall be greatly diminished. For this purpose, the employment of competent medical officers, versed in all the details of inquiry and inspection at each hazardous port of departure, is a measure which should meet with the approval of all authorities.

Next to it is the securement of that kind of roll-call or sick-list inspection on the passage (not common at sea), which shall know of and attend to any case of sickness, and so prevent a spread of disease.

An extended system of such guarding and strict discipline and application of detail of method, followed by a quarantine system like that of the port of New York, faithfully carried out, is equal to the prevention of any case of cholera in this country, except by the rarest accident. It is at least the radical, and so much the most efficient way for reducing the possibility of the occurrence of Asiatic cholera in this country, that its advocacy on the part of all medical men and its methodical carrying out by the National government cannot be too urgently pressed as indispensable. I purposely pass this part of the subject with a brevity out of all proportion to its importance, because it does not need argument, but only statement and such application as can only be given to it by national activity and precision.

As, however, governments, like individuals, as to what is expedient to be done, often have more forethought than foreact, and more of afterthought than either, it is wise to consider what ought to

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be done by *us* beforehand, in the prospect of a possible or probable invasion.

I shall not occupy your valuable time by expanding what is now an axiom, that there is such a thing as local and individual susceptibility to the disease, which largely determines the places most affected, and the persons most likely to suffer. The susceptibility of locality is to be overcome by putting it, and keeping it, in the best hygienic condition—a direction no longer diffuse in its meaning. But as time and financial ability may not be equal to all the details of the service, chief attention must be directed to the removal of all accumulated filth, the more prompt and complete removal of all organic matter capable of undergoing decomposition, and such correction of all defects in house-drains or soil-pipes of any kind as will insure their essential completeness. Such measures taken beforehand are far more important than most that can be done in this line after the disease is present in a place, since there is a limit to the disturbance of accumulated filth at certain seasons, or in the actual presence of a deadly disease.

Next to this is the attention to water-supply. For although the system does seem to establish a certain kind of toleration of an imperfect water-supply under its usual use, to those accustomed to it, water containing decayed or decayable organic matter has seemed to afford *special carriage* for those diseases to which the mucous membrane of the digestive apparatus is susceptible.

While it is true, as Dr. Simon has put it, that "a single case of cholera may, *if local circumstances coöperate*, exert a terrible infective power on considerable masses of population," it is equally true, and has been verified in multitudes of instances, that a single case, or cases in a single house, if local circumstances do not coöperate, is not likely to have extension, if all proper methods to prevent the spread of the disease are used. We have the definite statement that in the epidemics of India something else besides arrival determined both the quality and quantity of the disease. In four late epidemics, 1877–8–9–80, there were 154,986 villages attacked. In 58,972 of these there was only one death, and in 20,596 only two deaths, and yet in these years the total mortality was 1,380,226.—(Surgeon-General John Murray.)

As to the individual, to a more limited and yet practicable degree it is possible for him to have a clearing up and conform himself to those hygienic conditions which are also well understood, and which include correct habits, good food and water, well-sustained nutrition, and a contented mind. And if for any reason he has not or cannot have these, inasmuch as susceptible localities and susceptible individuals, when kept together, are far more apt to show results injurious to the locality and deadly to the individual than either alone, if the individual cannot or will not be improved, he should at least make arrangements for sojourn in another place, where the hygienic conditions of his sorroundings will compensate for the defect in himself. It is sometimes easier to remove susceptible individuals, and all individuals in fact, than it is to correct surroundings.

In view of any deadly disease, which, getting virulence from the combination of foul localities and foul persons, may and does become a pestilence, reaching out to those less susceptible, it is well for us to consider how far it is wise to be prepared with *refuge stations* for those whom it may become a public policy quickly to separate from all their surroundings.

The only other thing, perhaps, that just here we need to notice as to be done in advance, is that we should have very definitely agreed upon the course to be pursued as to any first cases that may occur. While this could hardly be expected of the local boards of smaller towns, it is due to the chief cities, and to the country, that the boards of great cities like this should have prepared and published their syllabus, both as a guide for others and that they may profit by suggestions made. The admirable extent to which this was done in Great Britain, summer before last, in apprehension of a possible visitation last summer, is in every way worthy of imitation. For the prompt and effective dealing with the first case is far less likely to happen than with the hundredth case, and yet no case in the hundred begins to have the importance attaching to its management that the first one has. And if on the first day of June a case of cholera should occur in this city, the Board of Health ought now to be able to tell us that, with no loss of time more than if it were an alarm of fire, they would dispatch a physician and a nurse for the patient, a medical man to look after the rest of the household, and a sanitary inspector to be in charge of the building, and to do whatever the board had directed.

We now come to a consideration of the means to be used, when cholera has actually come to be in a city.

The mode of its management will very largely depend upon the views we have as to its method

of spreading. Until we determine with some definiteness whether it is, or in what sense it is, a contagious or transmissible disease, we are not prepared to adopt methods suited to its limitation. If we hold to the view that it is not a disease which one person can acquire by contact with another; that even the secretions can give it only when not quickly removed, or when they affect water or food; that it is never simply air-breathed; that there is no risk except from garments to which cling particles of anal or oral discharges, our action will be different from that needed if it is transmissible in a more general sense. We believe there are at least two reasons why, in practical attempts at prevention, we are not to stand upon nice opinions as to contagion or infection, but to speak of it and deal with it as communicable. While the view is entertained that the vomited or voided discharges are media of the contagion, we know of no high authority who says positively that they are the only media. The language of Simon and Buchanan is, "Probably, under ordinary circumstances, the patient has no power of infecting other persons, except by means of these discharges" (from the stomach and bowels). The language of Chaumont is, "A majority of those in this country hold that there is a disease-poison, but that it *chiefly* is to be found in the material ejected from the body of the sick, in the rice-water stools, and the vomit of the sick," etc.

We have looked in vain for any one who absolutely excludes air as a possible medium. Where the contagion is said to attach to fomites, and to relate to things rather than persons, we have to remember that, in a sense, the skin may be a thing as much as the light flannel which is the covering next to it, and so such a distinction may be without a difference, and the person be the real carrier.

While we believe it not to be communicable to the extent or degree, or in the sense, that some other diseases are, and that, with proper precautions, those who know what to do and how to do it will not contract the disease, we nevertheless believe that arrangements for dealing with it must assume its communicability. This being the case, *isolation* of the sick from the well should be at the basis of all skilled management. Because in any method of attempting to secure the isolation by the removal of the person from the place where the sickness occurs, there is involved exposure and congregation instead of separation, the rule should be to remove the well from the room, or—better still—from the house. *Leave the sick, remove the well*, is the rule which must make the first deep impression on the mind of the sanitary superintendent; but with the recognition that the rule is only a standard from which there must necessarily be many deviations. These will be recognized and arranged for where it is totally impracticable to apply the rule.

If to-day a person is taken sick with cholera in any house, and is at once provided with proper medical and nurse attendance; another medical attendant placed in charge of all others in the same house, to watch and meet any case of diarrhœa, and a skilled sanitary inspector is placed in charge of his department to furnish and apply whatever is needed in his line, as to inspection and disinfection, most of the first cases will have no following. If they do, then removal of all well persons from the building, and sometimes from adjacent ones, under direction and inspection, both in the act of removal and afterward, is the feasible plan. Where the case occurs at some public place, where removal is necessary, the galvanized-iron or other metal ambulance should be used under direction of the sanitary inspector. It should reach a case just as at present the hospital ambulance reaches a case in a city, the removal not being attempted in an unskilled way by others, and the place to which removal is made being duly chosen beforehand. Great Britain, without its quarantine, has often illustrated, as it did last summer in Liverpool, how persons from infected ships, after proper cleansing of vessel and attention to baggage, may come into a city under surveillance, so that a case of choleraic diarrhœa or cramps, as occurred in that instance, is speedily met, and no death or focus of contagion results. Over and over again, cities under well-governed sanitary police are now showing that not only cholera, but yellow fever, diphtheria, typhus, scarlet fever, etc., ought always to be met in just this prompt way. The attendance of a proper nurse and physician to such persons being secured, and a medical watcher for all the rest of the family, or those closely adjacent, the sanitary inspector and his aids cannot be too busy in putting that house, and the street, and the neighboring premises, in the very best condition. It must be fully understood beforehand just what disinfectants will be used, and how house-cleaning shall be done, and to what extent any accumulated foul material shall be either covered or removed. The skilled disinfecting corps of New York city so well understand this as to need no directions, and a full outline of their plan is easily secured.

In addition to this thorough attention to all surroundings, and this circumspection over individuals, it is known that I hold to the view that in all these diseases, introduced from without by a specific contagion, we can do much by quick prophylaxis for the individuals exposed or in the same house. Potassium chloride, tinc. ferri chloridi, quinine, and some other sterilizing substances, maintained as present in the blood, as they may be by frequent administration of small quantities, and topically on the throat and exposed mucous surfaces, have for me saved many a family from diphtheria and scarlet fever, and will modify the susceptibility of most of those exposed. As I have before sufficiently insisted upon this view, and as it is gaining strong support from others, I do not need to enlarge upon it here. It is probably as possible to put an individual in a temporary state of prophylaxis as it is for a time at least to change the susceptibility of a locality.

We have thus far supposed cases where cholera has occurred only to a circumscribed degree, which, with proper precautions, will be the chief actual way in which we will have to meet the disease if it come. But what shall be done if, as does occasionally occur, it all at once appears in a city, and, owing to unusual favoring conditions of atmosphere and circumstances, as at Niagara Falls (1854),* it shows great spreading tendency. Here, as before, we believe most depends upon a corresponding rapidity of a well-organized corps of physicians, nurses, and sanitary police, to reach each new case, and each case of prodromal diarrhœa, immediately.

This means prompt isolation of the *well*, house-to-house inspection, treatment, and disinfection. The removal, under observation, of all the unaffected people of a block or neighborhood might become the wisest measure. On the other hand, occasional, but exceptional, instances do occur, where it is better to remove the sick, and leave the well under the closest observation, and their homes under the most active sanitary administration. The experience of England in 1866, and of New York city, go very far toward showing that organization and discipline are the best combatants of the disease. In re-examining with care the testimonies in India, Great Britain, and in the United States and Canada, as also the Western experience of 1873, we find that the fact and the controllability of an initial stage is the one hopeful element, which must be matched by such readiness of administration, and such close inspection, *as will not let any case of diarrhœa occur without attention.*

*2 Vol., A. P. H. Assoc., S. B. Hunt, M. D.

We have the recent statement of Surgeon-General Murray, that "the practice in India is the general distribution of remedies to meet any tendency to flux. They are distributed through the police, with instructions for their use, and an earnest command for their early application. The success of these measures is reported by all the civil authorities as most satisfactory, whilst any want of success is equally attributed to delay in their use till the disease had advanced to the stage of collapse."

With such methods and precautions as we have noticed, with preventive cleanliness, thorough isolation and disinfection, attention to first symptoms and first localities and all that inhabit them and the quick disposal of all excreta and all soiled clothing, and the avoidance of eating and drinking in a house in which there is cholera, we believe we have reason to feel that we are fully equipped, as never before, to contend with this foreign foe.

Whatever else is obscure, we have settled that the foe has no spontaneous outbreak within the system, but that it goes in through the throat; that its critical act is the very rapid multiplicatian of infinitesimal life, the initial stage starting in the stomach, and the profoundest effect being upon the nervous centres, and in the rapid reduction of the watery element of the blood and tissues. Our work is rapid counteraction, viz.: such equivalent to spraying as will protect the nose, mouth, and throat, as really as we now protect a wounded surface; such anti-culture condition of the stomach as will do just the opposite for bacilli to what a culture-field does for them; such stimulation of the nervous system, and such introduction of fluids as will suspend the devitalization which is going on and the mechanical phenomena with which it is accompanied. Talk as we do about our empirical treatment of Asiatic cholera, no one can compare the treatment in Asia, or Europe, or America, without seeing how uniform is the agreement as to checking early the diarrhœa, and as to the use of such internal means as will insure quick response from the stomach and the nervous system. The Asiatic pill of opium, assafœtida, and black pepper, has its counterpart in almost every combination used elsewhere. The patient and the physician who begin at the very start, and contend against both exposure and symptoms, in this antagonistic line, will seldom be baffled. With a fair chance, the medical profession is ready and equipped to prevent epidemics, as never before, and to satisfy all, except that too great multitude which is willing

to neglect *slight* prevention and first symptoms, and then, when all the peril is upon them, wonder why the doctors cannot cure this or that disease.

In closing this outline, allow me to say that should cholera visit us, some obligations are placed upon the medical profession, such as they have never had occasion to meet before. Since 1866, the last time any such widespread epidemic visited the Northern States, a great advance has been made in modes of investigation. Besides the kind of organization I have spoken of, there is need of a system of *collective* investigation, as applied to cholera, such as has not yet been definitely applied to any widespread epidemic.

No fear but that there will be enough post-mortems and enough biological and laboratory investigations. But what I desire to emphasize is the need of accurate investigation, by practitioners, of all the phenomena of cholera, and accurate record thereof at the time. For it is being pressed upon us that as to number of cases and as to virulence there are other determining factors than arrival, and also others than even locality. Temperature and dew-point, suddenness of changes and other climatological phenomena, need more close observation and record. Whether a diarrhœal tendency is widespread some days before an outbreak is another matter, as to which there are so many testimonies that we cannot afford to be without the most precise record of diarrhœal cases this summer; as to the day and hour of start, and the special or general symptoms.

Can it be true that diarrhœa in some of its forms is an attenuated virus of cholera? Read the section in the recent "Life and Labors of Pasteur" on "The Return to Virulence," and on the circumstances under which the attenuated germs which *constantly abound*, "weakened to such a degree as to have lost all virulence," are restored to a deadly virulence and again become capable of living and multiplying in the body (p. 246). Consider another fact stated by Pasteur (p. 226), "that the virulence may be entirely gone while yet the microbe lives," and then test by it some of those experiments in the Johns Hopkins laboratory, which would claim fully to decide the value of a disinfectant by its power to kill a microbe *in the laboratory*.

I believe this precisely recorded clinical observation must be pushed up closer alongside of these other observations which, with profound respect for laboratories, I must think are getting to be too much disjointed from those greater laboratories or experiment stations that are also in the hands of the experts in daily practice.

The British Medical Association and the International Medical Congress, at their last sessions, brought international collective investigation into prominence. But what we want just now is such a predetermined plan of recorded observations as shall give us the *minutiæ* antecedent to the dangerous stage of cholera, and all other details of a great many closely observed cases. Trusting, believing, as we all do, gentlemen, that our very precautions will be the best preventive of any epidemic if it does come, we thus seek to be ready to save all we can from attack or from fatal sickness, and, by a matured plan for observation and record of all cases, to add much to our information as to the prevention of this and other conveyable diseases.

THE URATES—THEIR EXCESS AND HOW TO REMOVE THEM.

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One of the manifestations of imperfect assimilation on the one hand, or of excessive tissue-waste on the other, is often noted by what in former years was denominated the "lateritious deposit" in the urine. Such an imperfect assimilation is very often met with in the daily rounds of practice. It may be the result of too free an indulgence, habitual or incidental, at the table, especially in a highly nitrogenous course of diet, or by insufficient exercise after the free use of such diet, or by what is commonly spoken of as "catching cold."

It may, with much consistency, be claimed that our normal diet is of a mixed character. It is partly vegetable and partly animal, and as long as the balance between these two forms of diet is kept fairly adjusted, and the processes of constructive and destructive metamorphosis are kept about equal, there is little expectation of seeing any considerable deposit of the urates in the urine. The conditions are not favorable to cause their presence. But an excess of rich food, composed largely of the nitrogenous varieties, throws upon the liver an increased amount of labor in order to prepare such food for assimilation by the tissues of the body, and thus prepare it to favor the constructive metamorphosis. If the immoderate use of the nitrogenous variety of foods is carried beyond the capacity of the liver to carry out fully its part in the process of digestion, and the complete metabolism of the albuminoids, it then throws a part of its work on the kidneys, or rather it manifests the fact of the overburdened

condition of the digestive organs by an attempt to eliminate from the blood, through the kidneys, the partially-prepared nitrogenous elements that are floating in excess in the blood, floating there because the liver is unable to fully prepare them for assimilation and appropriation by the tissues of the system.

The remedy for such a condition is readily seen, viz., a less nitrogenous diet, or the complete exclusion for a time of all animal food.

A similar condition may be produced in any one who habitually takes a free amount of exercise, especially in the open air, but who, upon occasion, consumes his usual quantity of animal and other food, and then, instead of taking the usual amount of free exercise or labor, spends the hours after such hearty meals in sedentary quiet. The destructive metamorphosis is not as rapid as usual, the demand for constructive material is not as great as usual, and so an over-supply is left for the stomach and liver to dispose of. Not being able to maintain the balance between the two processes of supply and demand, it, in this case as in the other, throws the excess into the blood-current, to be eliminated by the renal emunctories, and thus free the system of material not needed in maintaining the normal standard of health, and which, by its decomposition, would cause disease. In this instance, we find the urine loaded with the urates, the same as in the first one named.

An exactly similar condition is produced by "catching cold." In this instance there may be no excess of food taken, but there is interference with the elimination of waste material by way of the skin, and the process of retrograde metamorphosis is for a time more or less retarded, according to the degree of interference the "cold" has produced. If such "cold" is contracted at a time when the blood and liver are already surcharged with an excess of the nitrogenous elements of food, or, if at the beginning, or in the early stage of such "cold," the subject takes an immoderate quantity of animal food, he will stand well in for an attack of so-called biliousness and some considerable pyrexia. I believe such surcharged conditions of blood may render the subject much more liable to an attack of pneumonitis or bronchitis, rheumatism, etc., than he would be if the reverse condition of the system was present. However, from this basis, any one can see the utter folly of the old advice which is still so often sounded in our ears, that we should "feed a cold." The very opposite of this course will always hold good in treatment. Especially will this prove beneficial when we withdraw all articles of nitrogenous food.

A similar condition of the urine may now and then be met with when the quantity of food taken is not immoderate or is even too small in quantity to maintain perfect health, and where at the same time the supply of drinking fluid is insufficient. In such instances the urates are in proportionate excess for want of enough fluid in the system to make the quantity of urine normal, and so dilute it to a normal standard.

It will be seen that the interference in the assimilative process occurs in the advanced stages of digestion. The stomach has done its duty, the process has continued in the small bowels, the bile and pancreatic juices have done their work, the absorbents have taken the food and carried it into the circulation. It reaches the liver ready to be further reduced and prepared for assimilation by the tissues of the body. As long as a healthy balance maintains, there is no excess thrown into the blood-current, and none thrown into it not fully prepared to go on up to the higher stages of constructive metamorphosis. But if too much work of this kind is cast upon the liver, the fact is at once made known by the appearance of the urates in excess in the urine. This is quickly discovered by the lateritious deposit, or better by the usual chemical tests now known to nearly every tyro.

We often meet with such a condition in old people who indulge freely in foods rich in quality, and who take but little exercise. We often meet with it in the subjects of sedentary employment and habits. These cases are brought to this state of system by a more or less complete failure of the metabolism of the albuminoids of the food eaten. The great hepatic organ has the lion's share of this part of digestion to perform. They may be and are thoroughly emulsified in the stomach, and their reduction is further advanced by the bile, and action of the pancreatic and intestinal fluids, so that they are adapted to the absorbent glands, made ready to be taken up by them. But digestion is not yet complete, or at least not complete enough to make the proteids completely ready for building up the tissues of the body. This is accomplished by that largest gland of the body, the liver. All the albuminoids have their final reduction completed there. If too much albumen is ingested, it soon appears in the urine in the form of the urates. If the amount of albumen taken is very immoderate in quantity, albumen, little if at all changed, appears in the urine, and is readily detected by the usual chemical tests.

The line of treatment in most of these cases must be governed by the conditions present and the causes underlying the same. An immoderate quantity of the urates floating in the blood is often attended with very serious and dangerous symptoms, and nearly always by considerable feeling of depression, general malaise, aching, soreness, headache, foul breath, large, flat, indented tongue, covered with a thick white fur or yellow coating. This condition long maintained leads to a gouty state of the system, and to more or less free lateritious deposit in the urine. Often, however, the urine seems clear and normal, but its specific gravity is found to be high. A few drops of nitric acid added to a small quantity of it, and then set it in a cool place, will soon develop the presence of a large amount of these salts. These placed under the microscope will place them just where they belong chemically. In hot weather it is needful to set the receiver on ice after the nitric acid is added in order to fully develop these salts, even if present in considerable quantity. The microscope will detect them very often when the urine seems to the eye to be clear of them.

To attend to the diet of the patient is one of the points in treatment that cannot consistently or safely be overlooked. To give the subject the proper remedies and still allow him to go on using freely of nitrogenous food is almost useless. Every article of this class should be cut off until there is no excess of the urates found in the urine.

To expedite the elimination of this effete material from the blood and general system rapidly and easily, I know of nothing superior to sulphate of soda—Glauber salts. They are very harsh to take unless properly prepared. Then they are as easy to swallow as are the Epsom salts, so much in common use. The following formula is a fairly good one to use:

℞. Sodæ sulphas, ℥j.
Acid sulph. arom., ♏xxx.
Sacchar. alb., ℥iij. M.

Sig.—Put this in a teacup, pour on boiling water until the cup is two-thirds or more full; stir until cool enough to drink, then swallow all at one dose. It should always be taken on an empty stomach.

This will be readily taken, operates quickly, easily, and gives large, free, watery discharges. It is sometimes needful to repeat the dose in two to three hours. This remedy, as stated by Fothergill, has a special action for and on the liver, and stimulates it to prompt action. Besides this, it seems to eliminate the urates freely from the blood, and to prepare the way for future treatment. It occasionally produces nausea or vomiting, but not often, if well prepared.

I have noted that many authorities recommend the free use of alkalies in this state of the system, and apparently for rational reasons. These alkaline salts do clear the urine of the lateritious deposit, and the patient improves; but if we have a case in which we cannot afford to greatly increase the destructive metamorphosis, we can hardly be willing to produce a further reduction of strength by their very free or continued use.

If the urine is excessively acid, the soda or potassa salts will be well enough to use for a while, but generally such urine will not be excessive in acidity, and will, I believe, be found to have become alkaline in quite a short time after it has been drawn off. Very frequently it is alkaline to a marked degree when first evacuated; and an alkali, under such circumstances, could only add to the trouble already present. This class of remedies, however, indirectly stimulates the digestive organs, and in addition to a withdrawal of all nitrogenous articles of diet, will thus accomplish the end in a few days in many cases, while in a few who are already greatly reduced in strength they have not acted happily for me. This is especially true in old subjects.

Very small and frequently-repeated doses of colchicum will act finely in those cases that have a very marked gouty tendency. Its administration should be accompanied with a very free administration of water.

Indeed, in many of these cases, the best possible remedy we can administer is water. We often find these cases—as we do many others—where the amount of fluid ingested is not sufficient to supply the demands of the tissues. The volume of the circulating medium is diminished because there is not a sufficient supply of fluid contributed to the system to meet the common demands. The patient is costive; urine high-colored, throws down a thick sediment; skin is dry and harsh; there is headache, languor, and mental hebetude. A dose of physic will make the case feel better for a brief time. But to such a patient—they are generally very small drinkers of water—give a little harmless remedy to be taken every hour or two in a glassful of good, pure, soft water, and he will soon feel quite a favorable change. The bowels will open, the urine become free and clear, the mind regains its elastic buoyancy, and the man that before was stupid and half-sick, now has all his machinery running as merrily as a marriage-bell.

The blood and lymphatic channels in such a system are much in the condition of some of the sewers of our large cities when they have not sufficient water flushings to keep them clean. They become foul, fetid, and pestilential. So the effete and decaying material that floats in the blood-channels of the animal economy causes all manner of ill symptoms, and often diseases of a low and disorganizing type.

In this free use of water lies much of the power of the mineral springs of the world. People go there in a state of ill health, many of them in conditions similar to that above described. They drink and drink and drink of the mineral waters until every artery, vein, and lymphatic channel is flushed with the excess of fluid. Water rushes out through the kidneys, out at every pore of the integument and every excretory gland. In this manner the whole system becomes thoroughly washed out, every particle of tissue has the effete, waste material all soaked out of it and flooded away. Of course the patient feels better, and is better. He therefore praises the virtues of the mineral spring as a boon to suffering humanity and a great blessing divinely given. It really and indeed is so to those who have not wisdom enough to use the pure water of their own cisterns or pure springs to the full free extent that common-sense internal cleanliness naturally demands. Some of the most noted mineral springs in the world—so-called—are almost absolutely free from any trace of any and every mineral substance. Yet these same springs have a world-wide reputation for the cure of some forms of diseases.

In the class of cases in hand, and where the urine is loaded with the urates in heavy excess, it will be well to open out the blocked-up sluiceways by the production of pretty free catharsis. The sulphate of magnesia is excellent for this purpose, but the sulphate of soda is preferable if properly administered. Any good cathartic will answer. A mercurial is not indicated unless there be a marked specific taint present.

After free evacuations have been procured, the use of hydrochloric or nitric acid will serve a most excellent purpose. The latter is preferable, but its action on the mucous lining of the alimentary tract is too sharp unless very thoroughly diluted. This is not so to the same degree with the hydrochloric acid. But either of these should be given with an abundance of water, and with as much sugar as the patient may desire. If the patient will not drink as much water as needed, he should have diluents given in large abundance, as these will serve a similar purpose. Acetic acid will often answer the same purpose in many cases.

Case I. A young married lady came to me some time ago complaining of great debility, constipation, dysmenorrhœa, dysuria, and of great scantiness of urine, very high-colored. The appetite was poor, headaches frequent and severe. The sediment in the urine was abundant and of a pinkish tint. It was also strongly alkaline. The tests showed a large amount of the triple phosphates present. She was put upon the use of hydrochloric acid in two-drop doses to be taken in a glassful of water every three or four hours and ordered to drink very freely of water. Was given a common bitter tonic, and all nitrogenous articles of diet were ordered to be stopped. Her recovery was prompt and readily accomplished. I should have stated that before coming to me she had passed several small calculi, perhaps of the phosphatic variety. I did not see them. She had been for some weeks on the alkaline treatment before this without receiving any benefit or relief from her symptoms.

Case II. Was called to see a gentleman some months ago, who at first, I thought, might be suffering from enlargement of the prostate gland. A closer inspection proved it to be one where the system was being poisoned by the retention within the system of the salts of the urine that ought to be excreted. The quantity of urine voided was quite deficient, quite red, very alkaline, very scalding, and had seemed to cause a very marked cystitis. He was feverish, greatly depressed, quite weak; breath had a readily noticeable urinous odor; skin dry and husky. A cathartic was administered; hydrochloric acid in large quantities of fluid was given; afterward acetic acid was substituted. Cinchonidia was used in tonic doses. All nitrogenous foods were cut off. In this case a good and prompt recovery was had, where death from uræmic poisoning was threatened, and little was to be hoped for in the way of complete restoration.

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER, M. D.

Reported by W. H. SEELYE, A. M., M. D.

Mitral Regurgitation.

Patient is 27 years of age, and a baker by occupation. Was admitted January 24. He gives no family history of any pulmonary difficulties, ex-

cept that his grandfather was subject to attacks of asthma. His parents were both healthy. He has never had any venereal disease, and only uses alcohol sparingly. He has always enjoyed good health until two years ago, when he suddenly became short of breath and had a dry cough, and complained of sharp lancinating pains in the chest. At this time he was confined to bed for two weeks. Since then he has kept at his work, but the shortness of breath and the cough have continued. He has never expectorated any blood. He also has been much troubled with headaches and with cardiac palpitations. His bowels and micturition are normal. During the present winter he has had attacks of rheumatism in the shoulder. Has not been troubled with nausea or vomiting. Two days ago he became so embarrassed for breath that he had to give up work, and then he applied for admission at the hospital in Chambers street, and he was sent from there to this hospital. On admission his pulse was 92, respiration 26, and temperature 99.6°.

Gentlemen, inspection shows you here a plainly visible cardiac pulsation, which is not confined to the præcordial space, but is diffused over the left chest as low down as the seventh intercostal space, and in the epigastrium even to the right of the median line, and the pulsation is rapid and wavy in character. Furthermore, there is considerable diaphragmatic movement in the respiration, and the breathing is largely abdominal. You see here some marks upon the anterior portion of the chest and belly, which were made by the doctor in his examination to indicate the position of the apex beat and the lower margin of the liver. The apex is three inches below and one inch to the left of the nipple, and the margin of the liver is considerably below the ordinary line of hepatic dullness. All these things you note by the inspection.

Upon palpation I find the expansive movement as well as the elevation movement of the chest very limited, and the respiratory movement is chiefly diaphragmatic. I can also perceive very distinctly the apex beat at the point marked in the sixth intercostal space, and at least one inch outside the nipple line. Still further, I feel that the sense of resistance in the abdominal region is especially marked in the right hypochondrium, and this indicates either an enlargement or a displacement downwards of the liver.

Upon percussion of the chest in front I get the upper margin of præcordial dullness at about the place where it is ordinarily found, at the fourth rib, and it extends down in a vertical line to the sixth interspace, and the outer margin is one inch outside of the nipple line. The area of præcordial dullness is therefore considerably enlarged, and he consequently has a very great hypertrophy of the heart. There is nothing very marked about the percussion over the lungs on either side, but there is a slight diminution of dullness upon the right side as compared with the left. The upper margin of hepatic dullness is at the upper border of the sixth rib, and it extends downwards in the abdomen to a line one inch below the umbilicus. We have here, therefore, a very considerable enlargement of the liver. I find also a very considerable increase in the area of splenic dullness.

Posteriorly, upon inspection while in the sitting posture, I find that with the aid of considerable voluntary effort he expands the chest very well. There is a very decided difference in the percussion note of the two sides. The left side is more resonant from the supra-spinous fossa down to the base of the lung. But there is not sufficient dullness upon the right side to indicate any extensive condensation of the lung, or the presence of any fluid. Upon auscultation I find the breathing good, and I get the respiratory murmur all over the chest posteriorly, but not quite so loud or free upon the right as upon the left side. This slight difference in the two sides may be due to the presence of old pleuritic adhesions on the right side, or to some persistent variation in the amount of blood circulating in the two lungs.

I also find upon auscultation a loud blowing murmur, which is most distinct over the apex, and it is carried to the mitral orifice, and even to the base, and in fact it is to be heard with some intensity all over the præcordial region. And I can also hear it towards the axilla, as is common with these mitral regurgitant or indirect murmurs. I can also hear it behind, though not very distinctly, at the junction of the seventh and eighth ribs with the spinal column, as is not infrequently the case. The late Dr. Cammon, and following him Dr. Clark also, believed that the transmission of a murmur to this location on the back was an indication of some organic defect of the valves, in contradistinction from simple blood murmurs. But then we are not dependent here upon this sign to determine the question of diagnosis, for the other evidences of an organic valvular disease are sufficiently clear without this.

Now, for a few words in reference to the history. This man is twenty-seven years of age, and gives no family history of importance. He is a baker by occupation. There is no history of any of those acute diseases which are apt to be complicated by cardiac disease; but he first had his attention called to his chest two years ago by reason of shortness of breath, and difficulty of breathing on exertion; and at the same time he had some cough. But the palpitation and the dyspnœa were the symptoms that especially attracted his attention, and they have existed ever since. Now, this is not the history of the great majority of these cases, for you are able, ordinarily, to find a history of an acute cardiac affection, originating it may be from some infectious fever, or in the course of an attack of Bright's disease, endocarditis, or pericarditis. Or what is even more common, is a history of a former rheumatic fever complicated with an endocarditis. But here there is nothing to fix the date of the beginning of this trouble. Now, it is entirely possible for this disease to have developed itself gradually. The insufficiency of the valvular orifice may have been going on, increasing slowly, without attracting the attention of the patient or stopping him from pursuing his daily occupation. There are many cases of cardiac disease of this description, and this is especially true of adults and of persons well on in life. In many cases in adults there are slow changes going on in the cardiac valves, as the result of senile degeneration. But it is just possible that in early life this man may have had an acute illness, in the course of which there

occurred an acute endocarditis. And the fact that he does not give any such history is owing to the imperfections of the memory, or "to the anamnesis of the disease," as the Germans would say. It is, therefore, possible that he may have had in early childhood a disease of which this is the consequence; and two years ago was that time which finally comes in the history of all cases of heart disease, when the compensation is not equal to the demands of the circulation. Often the patient's attention is not drawn to the heart until the heart muscle can no longer overcome the obstruction of the circulation in the lungs. But whether the true history in this case is one of senile change, or of an early disease, is not, perhaps, a question of very great importance. What we have to deal with here is evidently an extreme hypertrophy of the heart with mitral insufficiency, and a condition where compensation is no longer taking place. The effect of this loss of compensation here has been to produce some difficulty in breathing, and an enlargement of the liver and spleen. There is no systemic dropsy, but simply a congestion of the lungs and abdominal viscera.

The clinical management of cases of this sort involves the consideration of two separate conditions. First, the condition in which you find this man, for the relief of which very active measures are required; and second, a less severe condition, such as exists after all the urgent symptoms have subsided. Both these conditions require the special attention of the doctor. I hove spoken to you many times about the clinical management of patients with great dyspnœa and congestion of the lungs and liver, and with systemic, ascitic, and pleuritic dropsy, and you know very well already the course of treatment in such cases. So I will rather speak now of the management of those cases in which everything is in the best possible condition already. I maintain these people are entitled to the most explicit directions and the most thoughtful consideration of the doctor. In the first place you should lay before the patient the necessity of having an occupation which will make no great strain upon the circulation. And this involves also the avoidance of all undue emotional excitement, and of everything which is disturbing to the equilibrium of the circulation. Then again you will find that it is of extreme importance that you should give the most strict injunctions about the food. This is often a thing of so much inattention and carelessness that I insist upon it as a matter of primary importance. A great deal of the distress in heart disease is the result of irregularities of diet. If these patients are allowed to become dyspeptic they will surely have to suffer for it. The general management of the diet therefore should be such as shall secure the patient against dyspeptic troubles, and especially against that variety known as acid dyspepsia. And you should select such food as will avoid this trouble. They should not take any considerable quantity of carbonaceous foods, or any food that they know does not ordinarily agree with them. Thus sweet and farinaceous foods, and all fatty foods, are often found to disagree. And there is still another reason why you should not give them, and that is because this class of food is calculated for the diet of those persons who have to exert a great deal of muscular energy in their business. But here you want to diminish the muscular energy, and to keep them from physical exertion. But they may engage in intellectual occupations, or do the lightest kind of work. The animal foods, with fruits and green vegetables and well-cooked bread as the only starchy elements of the food, make up the diet best fitted for them. Again, they are almost always made worse by alcoholic stimulants, and so they should not be allowed to take wine or beer, or any other fermented liquors. These are details of vastly greater importance than the administration of drugs.

The drugging of these patients is always to be rational, and for a special purpose. Here the lungs, and liver, and the chylopoietic viscera are much congested, and you can do something to relieve this by purgation, and occasional diuresis. It is often necessary to relieve general congestion as well as localized stasis; and this may be accomplished by allowing them to drink freely of fluids which shall encourage diuresis. Again, it is often necessary in these cases to stimulate the heart's action, and you can do this with heart tonics. And the one of greatest value in this form of disease is digitalis. But there are others which act in very much the same way as digitalis, and still others which act in a different way. I will not say any more about drugs, however, for I only want to impress upon you to-day what I said in regard to the hygienic management of cardiac disease.

Medical Societies.

Obstetrical Society of Philadelphia.

Stated meeting, June 4, 1885, the president, B. F. Baer, M. D., in the chair.

Biniodide of Mercury as a Disinfectant in Obstetrics.

by Dr. E. R. Bernardy.

My attention was first attracted to the use of the biniodide of mercury as a germicide by Dr. Miguel, who published in *L'Annuaire Meteorologique de Mentsonn's* the results of some experiments made to determine the minimum amount of a disinfectant necessary to prevent fermentation in a litre of sterilized beef-broth. His experiments show that the mercurials are the best antiseptics, the biniodide being nearly three times as strong as the bichloride. In his table of disinfectants he places the bichloride the fourth on the list. To a litre of sterilized beef-broth, he found it required 0.025 grammes of biniodide of mercury to keep the broth pure; while 0.070 grammes of the bichloride of mercury was necessary to produce like effects. This shows that bacterial life is impossible in a solution of one forty-thousandth part of the biniodide, while of the bichloride it requires the $\frac{1}{14000}$ part. I was so fimly impressed with his experiments that I determined to give the biniodide of mercury a trial in obstetric cases where it would be necessary to use an antiseptic. The following are the cases in which it was used.

Case 1. On February 7, 1885, I was requested

to take charge of Mrs. D., who had been confined about six weeks previously. It had been her second confinement, the duration of labor had been short, and delivery natural, but an extensive laceration of the perineum had occurred. No attempt had been made to bring the parts together by suture. On the third evening she had been attacked with severe frontal headache and chills, followed by fever with great tenderness over the region of the uterus. There being no improvement in her condition, her medical attendant was discharged, another called in who gave such an unfavorable prognosis that he, also, was requested to cease his attendance. I was finally called in on the above date. The patient had well-marked symptoms of septic poisoning; pulse 130 to 140, small and thready, and disappearing under pressure of the finger; temperature 104° to 105°; slightly delirious; constant vomiting; abdomen swollen and excessively tender; uterus enlarged, extending fully three inches above the pubis. In the right side there seemed to be a growth extending up into the abdomen, tender on pressure. On making a vaginal examination, I found the os dilated so that my index finger could readily enter the uterus. Its withdrawal was followed by a gush of highly-offensive matter. The uterus was surrounded by organized lymph, and was immovable. The mass on the right side was easily detected, and was continuous with the lymph surrounding the uterus. The vagina was hot. The perineum was torn to the anus; the surface raw and secreting an acrid matter which scalded the surrounding parts. The urine was dark; on standing, a reddish material settled to the bottom; it looked like blood corpuscles. Dr. A. E. Roussel examined the specimen, and reported it to be slightly acid, no albumen nor sugar; under the microscope, occasional pus corpuscles, and swarming with bacteria. In conjunction with internal treatment, intra-uterine injections were made three to four times a day. I first used a solution of bichloride of mercury, 1 to 2000. This was continued for three days without any marked results. The discharge continued as offensive. On the fourth day the bichloride was substituted by a 1 to 4000 solution of biniodide of mercury. Within twenty-four hours an amelioration of all symptoms took place, the pulse fell to 100, temperature, 101°; urine became clear, and the discharge odorless. The injections were continued for ten days, their frequency being gradually reduced. The uterus returned to almost its normal size, and the lymph was gradually absorbed. The patient recovered.

Case 2. March 19, 1885, I was called to attend Mrs. W. in her first confinement. On my arrival, found she had been in labor several hours. Examination showed the os perfectly dilated; bag of waters protruding; vertex presentation, first position, ruptured the amnion. The vagina, near its outlet, was roughened with venereal warts; these spread, also, over the vulva. Labor progressed rapidly, and the second stage was happily ended. After wasting nearly an hour making compression on the uterus, I made slight traction on the cord, and while doing so, felt, with my hand upon the uterus, a cup-like depression of the fundus take place. This convinced me that I had an adherent placenta to deal with, and it would be folly to wait any longer. On introduction of the hand I found the placenta completely adherent; one could hardly say which was uterus, which placenta. After considerable trouble, I at last succeeded in detaching the placenta; it took fully three-quarters of an hour. On making a second examination to ascertain if all had been removed, my hand came in contact with long shreds hanging from all sides of the uterus; the more I scraped, the more there seemed to be. I gave the patient f. ʒij. of the extract of ergot. The patient did well for two days, when toward evening, she complained of a chill and severe frontal headache. I gave her quinia sulph., gr. x., with morph. sulph., gr. ¼, at one dose; washed out the uterus with 1 to 4000 solution of biniodide of mercury. The pulse was 115 and temperature 102°. The discharge was highly offensive. The injections were repeated every four hours. On the evening of the next day the pulse was 98, temperature 100°, discharge odorless, and the patient was perfectly well in ten days more.

Case 3. April 23, 1885, I was requested to call at once to see Mrs. K. who was reported in imminent danger of death. This was her ninth confinement. The history of the previous ones, with one exception, was not good. Her labors were natural, but were followed by terrible flooding and protracted convalescence. I found the patient in an attack of puerperal convulsions. I gave at once grs. xxx. of potass. bromide, and grs. xx. of chloral hydrate; this dose was repeated in half an hour; ten minutes later another convulsion occurred. I then bled the patient freely. The os uteri was somewhat enlarged, the cervix soft and dilatable; vertex presentation. Dr. Curtin, whom I had sent for, having confirmed my opinion, and considering that the patient's time was quite up, we decided to etherize, dilate the cervix, and deliver. The forceps were applied, and traction made at intervals. A living child was safely delivered. Continuous pressure was maintained over the uterus, but after the expulsion of the placenta the uterus did not contract until it had been washed out with hot water. The bromide and chloral was continued every two hours, and no more convulsions occurred. The patient did well up to the fourth day, when the discharges became very offensive, the pulse accelerated, and slight tenderness existed over the uterus; no chill or fever. The uterus was thoroughly washed out with a solution of one to four thousand biniodide of mercury. Within twenty-four hours the discharge became odorless, and the tenderness over the uterus had disappeared. The patient recovered after a tedious convalescence.

In these cases it will be seen that the biniodide was prompt in its action, markedly so in Case 1, where the bichloride and the biniodide were both employed, the result being decidedly in favor of the biniodide. Naturally it will be said, here are only three cases from which deductions are to be drawn, and it is only after it has been carefully used in a large number of cases that its efficacy can be proven. It is for this reason that I call the attention of the members of this society who are in a position to give it a fair and impartial trial, and at some future time give the results of their investigations. I have found the 1 to 4000 solu-

tion of the biniodide non-irritating. I have used it extensively in my gynecological practice, and in washing out pus cavities, with good results. In it we have a preparation where the smallest amount of drug is used, with results far exceeding those of any other antiseptic. On account of the small quantity of mercury there will be less chance of salivation.

The method I have pursued in making the solution is: Take three and a half grains of the salt well triturated in a mortar and rubbed, with one quart of boiling water slowly added, giving a solution of 1 to 4390.

Since writing the above, I have seen in the *Philadelphia Medical Times*, May 16, 1885, that Dr. Panas, Eye Surgeon of the Hotel Dieu, used the 1 to 25,000 solution of biniodide of mercury in eye cases. He makes the following statements: "After a number of experiments, I have convinced myself that a solution in water 1 to 10,000 of the bichloride, or a similar solution 1 to 25,000 of the biniodide of mercury is much superior to any other antiseptic solution employed in eye surgery." Here again we have a statement that the biniodide in a smaller quantity is as good an antiseptic as the bichloride.

Dr. Montgomery's experience has led him to the conclusion that the bichloride of mercury is far more effective as a disinfectant than carbolic acid. Its introduction into the Philadelphia Hospital was due to Dr. Parvin, who found it very satisfactory. In eighteen cases of puerperal fever that were treated with bichloride injections, only three deaths occurred. This success was attributed by the hospital staff to the use of the bichloride. Dr. Montgomery in private practice follows the plan of Dr. Garrigues, of New York, and avoiding intra-uterine injections after labor, but applies pledgets wet with a bichloride solution over the vulva, after carefully cleansing away clots and washing the external parts with a similar solution. This sponging is repeated twice every day. In his last term at the Philadelphia Hospital he had only two cases of puerperal fever, one of which commenced twelve days after delivery. The history of Dr. Bernardy's cures shows an equal if not better antiseptic in the biniodide of mercury.

Dr. J. V. Kelly some years ago had several fatal cases of puerperal fever, and almost twenty-five cases that got well. The trouble commenced in a case of abortion, in which he did not succeed in removing all of the placenta. He was at the same time attending a bad case of erysipelas; and at that time the relationship of puerperal fever and erysipelas was not known to him. He was on the point of giving up his practice and leaving the town, and consulted Dr. Goodell on that subject. Dr. Goodell discountenanced such action, but advised him when attending an obstetric case, to remove his coat and roll up his sleeves, and wash his hands and arms well with turpentine, using the nail-brush thoroughly. Since that time he washes his hands in turpentine every day and again before every case of labor. He also uses a wash of vinegar or carbolic solution before touching a puerperal patient. He has had no puerperal fever or other septicæmic symptoms since that time.

Dr. Parvin said as a reference has been made by Dr. Montgomery to my having used corrosive sublimate vaginal injections in the cases of puerperal septicæmia under my care in the Philadelphia Hospital in my term of service last year, I will refer to the antiseptic treatment in the cases occurring the present year. When I took charge of the obstetric ward on the first of January, I found five recent cases of septicæmia; two of these patients died; one of the two had apparently recovered, and then was attacked by pneumonia; quite possibly this pneumonia had a septic origin. Then there was at least seven other cases, but all these, as well as three of the original five, recovered. Injections of a solution of corrosive sublimate, 1 to 5000, were used in all cases immediately after labor; the external parts were washed, too, with a similar solution. This injection was repeated twice a day in all cases for the first week after labor, while it was used oftener in those having septicæmia; intra-uterine injections were used only when vaginal injections failed to correct the offensiveness of the discharge, but as is well known, there may be serious, even fatal, cases of septic disease, though the lochial flow is not at all offensive.

In private practice, after once washing out the vagina thoroughly with the antiseptic solution immediately after labor, this need not be repeated unless symptoms demand it, but the bathing of the vulva twice a day with the solution ought not to be omitted. Add, if you please, to this treatment, the use of antiseptic napkins, a practice pursued by Dr. Montgomery at the Philadelphia Hospital so successfully, and I think we have taken the most important means to guard against the entrance of septic germs after labor.

He has had no experience with the biniodide of mercury, and does not know that it will supersede the bichloride. The argument in its favor is as strong as three successful cases can make it; but these are entirely too few, as Dr. Bernardy justly says, to prove its value and its superiority. In one of the doctor's cases labor was induced, apparently, on account of eclampsia. Now, is this the best treatment? Obstetricians are by no means agreed, some of the best condemning such treatment. But the subject is not properly before us now, and therefore no further remarks will be made upon it.

Dr. Montgomery uses the bichloride solution as an external wash only, not as an injection. He thinks that the records of the hospitals in which injections are used will not show as good results as those in which they are omitted, if septicæmia be not present.

Dr. Willard had a warning to sound with regard to the use of bichloride solutions of stronger grades. He had been using washes and antiseptic dressings made with a 1 to 1000 solution of bichloride, but in consequence of what was written about the advantages of stronger solutions, he increased the strength of his dressings to 1 to 500, and within twenty-four hours the stools contained bloody mucous, and were small and griping; there was vesication about the wound and around the limb under the dressings. Entirely dry dressings had been used, but they had been moistened by pus and serum from the wound. He does not see the advantage of strong solutions in serum as 1 to 100 or 75. The serum is a decomposable sub-

stance, and an uncertain portion of the antiseptic agent is destroyed by it; weak solutions in boiled water seem more reasonable, and answer every purpose.

Dr. Longaker has been much interested in the third stage of labor, and would like to hear how Dr. Bernardy removed the placenta in the adherent case narrated by him. He has been using Crede's method with great satisfaction. He thinks the hand should be kept out of the parturient canal as much as possible. He does not need vaginal injections after labor, but depends upon outside washes. He finds that the temperature rarely rises during the puerperal period, even after instrumental delivery. He thinks care during the third stage will avoid the necessity for antiseptics.

Dr. Parish agrees with Dr. Parvin's views. He has found a solution of 1 to 1000 of bichloride irritating, and he now uses 1 to 2000 or 5000. Strong solutions cause an appearance resembling erysipelas or inflammation of the derm. Injections are not necessary in every case where the surroundings are cleanly, and the patient a multipara, he does not use them; but in primipara, with contusions or lacerations, and when version or instruments have been employed, he is in the habit of injecting a weak solution of bichloride immediately after delivery, but he does not repeat it, but simply washes out the vagina. Cleanliness of hands, instruments, and nurse is the most important point. He has never had any trouble in private practice.

Dr. Bernardy, in closing the discussion, remarked that he thought he had a far better antiseptic in biniodide than the bichloride. He had used the former in surgical cases also, washing out pus cavities, and always with good results. He does not use intra-uterine washes in every case of labor. He has attended since the first of the year about seventy cases of labor, and he has employed the intra-uterine injections in only the three cases detailed. In every case of labor he uses carbolic acid soap to cleanse his hands and arms, and the external genitalia of the patient. The eclamptic patient had reached or passed her full term, and there was no reason why the child should not be removed. In the case of adherent placenta, it was pulled off forcibly, and a shreddy lining was left in the uterus, as no line of separation had formed. He believed the daugers consequent on passing the hand and arm into the uterus and vagina are much exaggerated, and he does not hesitate to do so when the exigencies of the case demand it.

(*To be continued.*)

—Dr. Fleischl, of Vienna, declares that morphinism, alcoholism, and similar habits, can now be cured rapidly and painlessly by means of cocaine chloride. The method is very simple—a withdrawal, either gradual or abrupt and complete, of the habitual intoxicant, and treatment of the nervous and other symptoms which arise therefrom by means of hypodermic injections of the cocaine. He claims that in ten days a cure may be effected in any case. The dose of cocaine chloride hypodermically is from $\frac{1}{12}$ to $\frac{1}{4}$ grain, dissolved in water, repeated as necessary.

PHILADELPHIA CLINICAL SOCIETY.

Stated meeting, February 27, 1885. The president, Edward E. Montgomery, M. D., in the chair. Dr. Montgomery reported several cases of

Abdominal Surgery.

No. of Patient.	Age, Years.	Disease.	Operation.	Hospital or Private Practice.	Date.	Result.	Remarks.
1.	28	Ovarian tumor. Left ovary.	Ovariotomy.	Hospital.	May 17, 1879.	Recovery.	Right ovary contained *two* small cysts. Since been pregnant.
2.	35	Cancer of uterus and rectum.	Colotomy.	Hospital.	April 28, 1880.	Recovery.	Survived one year. Was able to attend to herself, and had no discomfort.
3. Col'd.	53	Multiple fibroid.	Hysterectomy.	Hospital.	May 5, 1880.	Death.	Fifty-three hours. Peritonitis and exhaustion. Tumor weighed 12 pounds, partly calcified. Aorta atheromatous.
4. Col'd.	46	Fibroid.	Hysterectomy.	Hospital.	March 17, 1882.	Death.	Shock 2½ hours. Ureters dilated. Kidneys sacculated. Tumor weighed 16 pounds.
5.	46	Epithelioma of larynx and œsophagus.	Gastrostomy.	Private practice.	December 17, 1882.	Death.	On fourth day beginning peritonitis. Had been supported three weeks on injections.
6.	17	Menstrual epilepsy.	Oöphorectomy.	Hospital.	September 13, 1884.	Recovery.	Convulsions less severe. An interval of three months between epileptic attacks.
7.	30	Cyst of broad ligament.	Laparotomy.	Private practice.	October 9, 1884.	Recovery.	Cyst was enucleated and the right ovary removed.

Cases 1, 3, and 4 were done under antiseptic precautions; 6 and 7 without. He objected to the spray, saying it increases the peril of the patient, by the prolonged chilling of the peritoneum, by absorption of a deleterious agent, and by the increased organic matter washed into the wound from the impure air of the room.

Dr. L. Brewer Hall presented the following case: "Mrs. S. applied to the Philadelphia Dispensary February 17, 1885, seeking relief for a rapidly-increasing loss of vision. She has always had excellent health, has given birth to five children, and is now pregnant for the sixth time, and thinks she is now in the eighth month. At present she feels perfectly well, except her eyesight, which has failed rapidly during the past few weeks; has no aches nor pains anywhere, and has a good appetite.

"Her vision upon entering the Dispensary was R. $\frac{1}{60}$, L. $\frac{2}{60}$; read Jæger with difficulty. The exterior of the eye appeared perfectly healthy. The ophthalmoscope, however, revealed the existence of *retinitis*, and that peculiar form characteristic of kidney disease, *retinitis albuminurica*. The urine, upon examination, on the 18th inst., showed a moderate amount of albumen ($\frac{1}{5}$ to $\frac{1}{8}$ bulk), with a few large granular tube-casts, mingled with much squamous epithelium, confirming the diagnosis made upon the appearances in the eye."

Dr. Montgomery questioned the importance of the induction of premature labor.

Dr. Hall, in reply, said: "That would depend on the amount of inflammation and the stage of pregnancy. This deposit of fat in the retina is generally absorbed rapidly. *Exudation* of lymph into the retina near the disc, is not so rapidly taken up. If the disc is being choked rapidly, the induction of premature labor should be considered. In this case the patches are diminishing, the inflammation seems to be subsiding, so there is no indicatfon to induce premature labor."

(March 1, the patient was delivered of a stillborn fœtus, and there was a marked improvement in her eyesight immediately.

MARY WILLITS, M. D.,
Reporting Secretary.
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EDITORIAL DEPARTMENT.

PERISCOPE.

Manganese as an Emmenagogue.

Dr. Frank H. Martin thus writes in the *Chicago Med. Jour. and Examiner*, February, 1885:

"From my observation I have been led to consider manganese in any form a direct stimulant to the uterus and its appendages. It may exert this influence by acting as a direct vaso-motor nerve stimulant to the vascular system of the parts, and in consequence of the improved circulation directly increase the tone and nutrition of the organ, as it may exert its whole force through stimulation of the sexual nerve ganglia, or even possibly the sexual nerve-centres, thereby bringing the organs to their normal state of action." At any rate its action is prompt, and direct in bringing the uterus and appendages to a normal state of menstrual tonicity, when the lack of tone is dependent upon some previous depression of innervation.

It will be seen by the following typical cases, that even when the cause of the depressed innervation is still acting, this remedy will exert its stimulating power over the menstrual mechanism. A young woman, eighteen years of age, in consequence of phthisis, had not menstruated in four months. Experimentally I gave her manganese. Menstruation occurred within a week. "Another young woman, twenty-four years of age, with an aggravating digestive trouble of some years' standing, had become very irregular, flowing profusely for a week or two, then scantily for an equally irregular time, again followed, perhaps without warning, by a profuse flow, or as likely complete cessation. This state of affairs had been going on for more than a year. There was no dysmenorrhœa. She was very weak and anæmic from the effects of indigestion and loss of blood. This patient was given two grains of the permanganate or potash dissolved in one-half glass of hot water every night on retiring. It was kindly received in this way by the irritable digestive organs. In a very short time there was a decided improvement in the menstrual trouble, and the patient has since menstruated three times normally."

"In young girls who are irregular in the early months of menstrual life, where it is simply caused by the natural weakness of the partially-developed organs of generation, or where, from an overworked nervous system, the organs are robbed of their natural nerve force, this remedy seems to possess the stimulating properties requisite to bring them into healthy action. A remarkable case of this kind was that of a young girl who had menstruated once. Eight months had passed and the menstrual flow had failed to appear again. The mother of the girl being alarmed sought advice. The permanganate was given in two grain doses twice a day. Within a week the girl menstruated the second time in her life. In two other cases of 'missing' in young girls, without any apparent cause or any other symptoms, the remedy given in the same doses a few days before the next regular period was expected, stimulated the organs to a normal flow. The action of the manganese was so prompt in these cases that I am convinced it was no coincidence." Since the above report was made I have been able to add many similar cases to my list, and the results have been invariably as gratifying.

"It is well known that from exposure to cold the weakest organs of the body are the ones most liable to suffer. A woman who, when exposed to cold, immediately suffers suppression, cessation, or excess of the menstrual flow, will invariably

be found to possess susceptible and weak menstrual organs. In cases of this kind, viz.: suppression, cessation, or excess of menstrual flow, caused by catching cold, with no other apparent cause, the most gratifying and prompt results are obtained from manganese. The above variety of cases are of so frequent occurrence that in them I have had numerous opportunities to test the new remedy, and I have yet to see it fail in either amenorrhœa or menorrhagia, when due to irritation of cold alone. In several cases where the flow was a week or ten days overdue from catching cold, the permanganate was given in large doses, and its almost magical effect demonstrated by the flow appearing within twelve hours."

My principal object in making *this report* is to emphasize the fact that manganese is a general stimulant of the menstrual organ, and in consequence of its stimulating power is an efficient remedy in certain forms of *menorrhagia* and *metrorrhagia*. In my report one year ago, I mentioned this point, but at that time my opportunities for testing the drug in that direction had been somewhat limited. I said at that time:

"Although I have had greater opportunities for testing the value of manganese in *amenorrhœa* than in *menorrhagia* or *metrorrhagia*, I have received unmistakable evidence of its power in the latter forms of menstrual trouble."

"Menorrhagia and amenorrhœa in their outer manifestations are exactly opposite in nature, but they are very often dependent upon the same causes. When the cause is anæmia, or any depressing constitutional disease, producing a perversion of the functional activity of the menstrual organs, and their *perverted* action consists of an *irregular* or *excessive* flow, this condition will as readily succumb to the stimulating effects of manganese as when the opposite condition exists. The following cases are of interest: A woman, aged twenty-six, sought advice for excessive and irregular flowing. She had been married two years, and had one child, twelve months old. The child was large and strong, the mother physically slight. The mother nursed the child, and for ten months stood the strain very well, when she commenced to fail, suddenly grew weak and anæmic, and began to flow excessively. This continued with but a few short irregular remissions, until I saw her at the dispensary. She was given two-grain doses of the permanganate of potash four times a day. At the same time all other treatment was withheld. In three days the patient returned, saying that the flow had stopped the next day after receiving her medicine. I then discontinued the manganese, prescribed iron and nourishing food, and she continued to improve. By digital examination nothing abnormal was revealed in the above case. Another case was that of a large, stout woman, thirty-five years of age, who came to the dispensary suffering from menorrhagia. Her menstrual periods were regular as to *time*, but the quantity of blood was alarmingly excessive, and would last for two weeks. She was married, had three children, the youngest three years of age. This abnormal condition of menstruation had been coming on by degrees for a year. The uterus was a little enlarged, and soft to the touch; otherwise, by physical examination, nothing abnormal. Four days before the expected flow, she commenced taking the permanganate in two-grain doses, three times a day. Menstruation came on at the expected time, and after a normally free flow for four days, passed off naturally. Before the next period the same treatment was repeated, with the same marvellous result." The above histories were written a year ago. Since then I have seen a great many cases of menorrhagia and metrorrhagia succumb to the effects of manganese. I have complete histories of a number of these cases which might be of interest, but will be content to mention a few typical cases taken from the case-book of Dr. S. F. Bradley, of this city, a gentleman who has taken considerable pains to test the value of manganese in menstrual troubles.

1. "Mrs. D——, aged thirty-three. Treated during winter and spring of 1883 for chronic endocervicitis and endo-metritis; and enjoyed good health until August 10, when she was taken with menorrhagia, which lasted six days before medical advice was sought. Gave in succession ergot, gallic acid, hot injections, injected tincture of iodine into uterine cavity, and finally plugged cervical canal with sponge tent which remained twenty hours. Hemorrhage still continued. Then ordered capsules, each containing two and one-half grains of permanganate of potash, one to be taken every three hours. Flow ceased shortly after taking the second capsule.

2. "Mrs. F——, aged thirty. Made first visit January 19, 1884. Three weeks before had a miscarriage at three months, and was attended by a midwife. January 19, began flowing excessively, and suffered much pain in uterine region. Detected by digital examination a piece of placental tissue about size of hen's egg in uterine cavity. Removed with fingers, and flow ceased. From this time until February 24, she improved rapidly from her anæmic condition, but at the above date menorrhagia began and was excessive. Ergot (℥j. fl. extract every two hours) was given during the night with no cessation of flow. The following day ordered two-grain capsules of permanganate of potash. Hemorrhage ceased in two hours after taking first capsule.

Case 3. "Mrs. McF——, age thirty. Two children, youngest one and a half year old. Began flowing in the middle of September, 1883. She sought no medical advice until October 15. The hemorrhage had rendered her exceedingly weak and anæmic. Gave ergot and elixir ferri quin. et strych. She continued this prescription for ten days with no benefit. Ergot and gallic acid were then used with no amelioration. Careful examination revealed no enlargement of uterus—no tenderness—very slight laceration of cervix. On the 28th of October ordered two-grain capsules of permanganate of potash, one every four hours. One hour after first capsule had been taken the flow ceased suddenly. The capsules were continued until three or four had been taken. Saw her a few weeks ago, and her health had been excellent.

Case 4. "Mrs. B——, age thirty-five. Five children, youngest two years. Laceration of cervix (bilateral). Uterus four inches in depth. Chronic endo cervicitis and endometritis—slight prolapsus. Treated her for uterine trouble a couple of months previously, and had advised operation.

During the middle of October was taken unwell; flow never so profuse; had continued several days before seeking medical advice. Ergot, mineral and vegetable astringents had no effect. Gave the permanganate in two-grain doses. Shortly after first capsule was administered the flow began to diminish, and ceased entirely after the third had been given."

As has been demonstrated in the foregoing cases, the action of the drug is very prompt where indicated, and if discriminately given I am sure similar gratifying results will be obtained by others.

A Short Note on Two Cases of Stricture of the Rectum.

Dr. Oscar J. Coskery thus writes in the *Maryland Med. Jour.:*

In August, 1884, I was requested to see Mr. J. B., aged 43. The history of his case was, that during the last war in this country, while serving in the army, he became afflicted with hemorrhoids. Later, in 1877, an abscess made its appearance in the buttock, which, bursting at different points, left several sinuses; as these closed, it seems, with very little treatment, symptoms of difficulty in defecation came on, together with occasional discharges of blood *per anum*. These symptoms steadily increased until, when I first saw him, his condition was as follows: A tall, spare, dark-complexioned man, with dark hair and eyes, and an expression of countenance suggestive of habitual suffering. He had been complaining for a few days of what he called diarrhœa, but what, upon investigation, proved an almost incessant call to stool, though very little passed at each time, with great pain and some blood. By digital examination several distinct nodules were discovered, partially occluding the lower part of the rectum, and, at about two inches above the anus, a hard ring, which prevented the finger from penetrating further, even although considerable force was used. On this account, the extent of the constricting band could not be made out. Great pain was elicited by the examination, but very little bleeding followed. From the smooth feel of the stricturing band, though the patient was above suspicion, it was decided to put him upon specific treatment. This was faithfully carried out, but, in despite of occasional remissions, the patient steadily emaciated, the rectal symptoms increased, and upon making a second digital examination the obstruction was found to be greater. Believing that I had a case of malignant disease of the bowel to deal with, I advised colotomy. The patient only consented when his trouble had so increased as to make life unbearable. On November 7, 1884, I operated. The operation was exceedingly long and tedious, occupying fully an hour, because of the descending colon being, as I had not found it in former colotomies, contracted to the size of the little finger. It was not until, when from its anatomical position and relation to the kidney, I felt it could be no other portion of the intestinal canal, that I brought it out and stitched it to the skin. When the gut was opened, no fæcal matter escaped. The wound was dressed in the usual way, and next morning a small quantity of fully-formed fæces was found to have escaped. During the night of the second day a very large quantity came away. The wound at first did well; the patient, however, never did; a low form of peritonitis made its appearance, and on November 14, exactly one week from the date of operation, the patient died.

On January 22, 1885, I was called to see Nellie B., aged 14, the youngest of three children of the above. The history of the case was as follows: Ever since she could remember she had had pain and difficulty in defecation; that about four years ago the nurse had first noticed a decrease in the size of the stool. These symptoms had lately become much worse, and now she spends an hour and upwards in the closet before she can feel that she has relieved herself. She, also, now suffers from occasional attacks of "cramps," irrespective of the efforts at stool. Her stools consist of bands of solid matter, generally with a small quantity of blood, sometimes only streaked, at other times there passed as much as a tablespoonful of free blood. The quantity varies with the difficulty in defecation, and is referred, by her, to the straining. The ribbons of fæcal matter are about one-quarter of an inch broad by one-eighth thick. The child was sallow, undersized for her age, had never menstruated, and was thin. Her general condition was what might be considered moderately good, but she was old-fashioned and "Paul Dombeyish" in her ways. Upon attempting a digital examination, great pain was elicited, with spasm of the sphincters, and about one inch and a half above the anus a strong circular band was found, which would not admit my finger, perfectly smooth to the touch, and pressure upon which with the tip of the finger caused the child to scream (I should mention that she was very hysterical and very nervous under the examination). No blood or fæcal matter was found upon the finger when withdrawn, but a small quantity of blood was passed by the patient very soon after. To allay the great irritability, a very small suppository of opium and belladonna was ordered. After continuing this alone for some weeks, with no improvement, the child was put upon cod-liver oil. On March the 5th I found her wonderfully improved in general appearance. She is much stouter, has a good color, the rectal trouble has improved. Both she and her nurse state that the size of the *ribbon* has increased, and that she has passed no blood since taking the oil.

—At a meeting of the St. Louis Medical Society (*Weekly Medical Review*), Dr. Williams presented the history of the following interesting case: A young man in Carondelet had been deaf for several years, and during all this time he had dizziness to such a degree that sometimes he would fall. Besides this he had convulsions which were regarded as epileptic. On examination of his ears, they were both found to be plugged up with wax; and when this was removed, not only did the deafness disappear, but the dizziness and epileptic symptoms also went away. It is well known that affections of the drum may be the cause of the decided dizziness.

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DON'T SEND ME TO THE HOSPITAL!

Every one who comes in contact with the sick poor must be struck with their reluctance to enter a hospital. No matter how miserable the room, how bad the nursing, how indifferent the medical attendance, they decline, or, at all events, accept with great reluctance, the best skill and care the profession can provide, aided by abundant means, in hospital wards.

This behavior we often hear ascribed to ingratitude, to prejudice, to stupidity, or to pride. There is another consideration, however, which in recent years exerts still greater influence upon the poor patients with whom we have come in contact ourselves, and that is, a dread of becoming subjects for experimentation rather than patients for cure. They very naturally are not eager to enter an institution that is chiefly used, as they suppose, as a school for training students and demonstrating operations. The men of science in these institutions are, moreover, believed by them to make but little distinction between a helpless pauper and an animal for vivisection. They think, in their ignorance, that those who are in the daily habit of performing agonizing experiments upon living creatures, deliberately intended not to heal but to mutilate, may carry their habits with them to the hospital wards. Many of these poor people, too, read the newspapers, and are struck by learning that in other lands the Sisters are driven out of the hospitals, the religious symbols are torn down, and the wards are named Salle Gambetta, or Magendie, instead of Saint Mary or Saint Francis, as they were formerly called—for the great charitable institutions with which the world abounds were founded and had means left for their support by men who were more full of human pity and charity than of love of science, and thought more of the relief of suffering than of the acquisition of medical facts.

There have been published, too, in journals and works of undeniable authority, reports of experiments which, to say the least, are quite intimidating. In the *Lancet*, for example, for 1875, are indisputable cases of horrible experiments with

the virus of the foulest of diseases, recorded in Henry Lee's *Hunterian Lectures on Syphilis*. In Ringer's *Hand-book of Therapeutics*, the results of painful and even dangerous experiments with poisonous drugs, administered with no other motive than that of a purely scientific curiosity, on men, women, and children, are freely cited. In a medical journal of this city,* some few years ago, were published some experiments on the functions of the lobes of the brain, in which needles were passed at various points into the dura mater and into the brain of a poor woman, admitted into the ward of a hospital called *The Good Samaritan*. In observation 3, we read: "When communication was made with the needles, her countenance exhibited great distress, and she began to cry. Very soon the left hand was extended as if in the act of taking hold of some object in front of her; the arm presently was agitated with clonic spasms; her eyes became fixed, with pupils widely dilated; lips were blue, and she frothed at the mouth; her breathing became stertorous; she lost consciousness, and was violently convulsed on the left side. The convulsion lasted five minutes, and was succeeded by coma. She returned to consciousness in twenty minutes from the beginning of the attack, and complained of some weakness and vertigo."

Observation 4 was the same as the preceding, except that the strength of the current was not sufficient to produce the epileptiform attack.

In observation 5, the proposed experiment was abandoned; Mary was in too desperate a condition. "The next day Mary was decidedly worse. She remained in bed, was stupid and incoherent. In the evening she had a convulsive seizure, lasting about five minutes, confined to the right side. After this attack she lapsed into profound unconsciousness, and was found to be completely paralyzed on the right side," etc., etc.

At the autopsy the track of the needles in the brain could be distinctly traced on both sides: on the left, the needle had penetrated a depth of one inch, on the right, one and a half inches; the track being marked by a line of diffluent cerebral matter.

The reporter in this case says it seems to him most desirable to present the facts as he observed them, without comment, and we have no wish ourselves to make any, except to say that there are comparatively few in the lower classes of society who would care to be exposed to such practices.

Sylvius, in his preface to the *School of Salernum*, says: *Si dare vitam proprium munus Dei est, certè datam tueri, et jam oppressam pene restaurare, aut fugientem retinere, quod medicorum est, Deo proximum fateamur oportet.*

A modern man of science, like the *insipiens* of ancient days, is generally believed "to say in his heart, there is no God,"* so that whether or no He be nigh to Him may not cost him a thought; but those who do believe in Him, must be excused for an unwillingness to entrust themselves to any one who regards mind as a mere outbreak of matter, and man a mere animal developed from irrational stock.

We believe that we have given here the principal reason why so many show dislike to entrusting themselves in institutions founded and maintained in pure benevolence and kindness towards the sick and suffering, and where they certainly can and, moreover, generally do, receive the most skillful and careful attention.

THE DIFFICULTIES THAT BESET SANITARIANS.

One of the most remarkable illustrations of the survival of the superstitions of the "dark ages," and one that seems almost incredible in the light of the nineteenth century, comes to us from Spain. We read that in the cholera-ravaged districts of that fair country, the sanitary officials, while endeavoring to perform their duties of disinfection, etc., were set upon by infuriated mobs and driven from their labor, the ignorant populace preferring to rely *solely* upon prayers for the staying of the epidemic. This action has two

*See the American Journal of the Medical Sciences for April, 1874.

*There are other resemblances between such men and the *insipiens* (or *agnostic*) of olden time, for we read, "*corrupti sunt, et abominabiles facti sunt in studiis suis.*

strong parallels; that of the masses in Naples last year who interfered, absolutely interfered (think of it), with the physicians in their ministrations to those sick of cholera, and that of some ignorant colored persons in Washington, who recently interfered forcibly with the performance of a necessary surgical operation upon one of their race, for the alleged (and no doubt honestly conceived) opinion that the design of the doctors was to kill the patient, and, we might add, to make cod-liver oil of the corpse, since this is a favorite superstition among the Washington darkies.

We do not mean to belittle the efficacy of prayer—far from it; but we do unhesitatingly assert that intelligent clergymen of all denominations freely admit and teach that prayers and sanitation should go hand-in-hand; neither should be relied upon to the exclusion of the other.

Again, in addition to this superstition, we have the ignorance, or duplicity, or carelessness of presumably intelligent men to contend with. This fact is well illustrated in the following extract from the Cairo correspondent of the *Brit. Med. Jour.*, who says:

"The following story illustrates the impossibility of any general sanitary reform as long as the capitulations practically exempt Europeans from the regulations which apply to natives. A short time ago Surgeon-Major Green was informed by a lady that she had reason to believe there existed a case of small-pox at the laundry where her clothes were washed. The sanitary sub-director immediately proceeded to the house in question, in company with the lady, and found, as she said, a young man with small-pox, exhibiting a well-marked pustular symptom of several days' duration. In the very room where he lay was some of the linen taken in to wash. The patient had been attended by two medical men, the one an Austrian, the other a German subject. They had given the friends of the patient a written statement that he was suffering from 'wind' pox (*sic*), and accordingly led them to believe that there was no need for precautions to be taken. This paper was shown to Surgeon-Major Green. The latter obtained a confirmatory opinion as to the case being one of true variola, and then wrote to the attending medical men, requesting them to come to him at the Sanitary Directorate, and explain their conduct. They went. The Austrian subject simply excused himself on the ground that the case was modified small-pox. The German subject, who is a medical man of considerable practice and established position in Cairo, disputed the right of the Sanitary Directorate to interfere with him, and took the matter to his consul. Surgeon-Major Green blamed them for misleading the patient as to his true condition, and not advising the friends to take proper precautions. The German Consul wrote to Nubar Pasha, accusing Surgeon-Major Green of "furtively" entering the house of the German's patient, and interfering with him in the treatment of the case. He disputed his right to interfere with a German subject in any manner whatever, and asked that reparation may be made for the insult endured by his *protégé*. Surgeon-Major Green has replied, pointing out the great danger that would ensue to the public health if medical men were allowed to act in such an unprincipled way, and asking that the case may be referred to the German Medical Faculty for arbitration. There the matter rests for the present."

It required the terrible lesson taught by the Plymouth epidemic to give us a State Board of Health, and it will require a frightful visitation of cholera to cause our masses to realize the importance and necessity of sanitary science.

Enough of a decisive nature has been already accomplished by the apostles of hygiene to entitle this science to a high place in the estimation of the people, but, notwithstanding all this, the great obstacle of non-coöperation of the people still stands in the way of sanitarians.

Notes and Comments.

Case of a Hermaphrodite Aged Nine Years, with the External Appearance of a Female, in Whom Both Testicles were Removed from the Labia Majora.

Dr. George Buchanan thus writes in the *London Med. Times*, February 14, 1885:

Before giving you the particulars of this extraordinary case, I may recall to your mind the classification of hermaphrodites, and although it may be open to some criticism, I shall adopt that contained in Sir James Simpson's paper in the "Cyclopædia of Anatomy and Physiology," viz.: into spurious and true.

The spurious comprehend those in which mal-

formations of organs of one sex make them have somewhat the appearance of those of the opposite sex; the true, those in which there exist in the same individual some of the organs of the two opposite sexes. Without entering into any detail, I shall simply give the following list founded on cases actually recorded, viz:

Spurious hermaphrodites. Females have been mistaken for men in consequence of excessive development of the clitoris; also long continued prolapsus uteri. Males have been mistaken for females in consequence of extraversion of the bladder; of adhesion of the penis to the scrotum; of hypospadias.

True hermaphrodites have been divided into *lateral*, with an ovary on one side and a testicle on the other; *transverse*, *i. e.*, with the external organs male and the internal female, or *vice versa*, the external organs female and the internal male; and *vertical* with male and female organs on the same side in the same plane.

The case I have to bring before you is one of the transverse kind. I shall shortly relate the circumstances as they occurred.

Christina ——, aged nine years, was admitted into my ward in the Western Infirmary, complaining of uneasiness in the region of the pudendum, but without any history of injury.

On examination, I found the right labium somewhat swollen, and evidently containing a small movable body the size of a Spanish nut. It was connected to the inguinal region by a small process, and ont racing that up I could feel that it emerged from the external abdominal ring. Precisely the same state of affairs existed on the left side, but the little body was further down, and there was a distinct external abdominal ring, so large as to admit the point of the little finger.

I had at first great doubts as to the nature of the case, conceiving it possible that it might be one of double hernial sac, each containing an ovary. But that seemed so improbable that the other alternative suggested itself, that it might be a hermaphrodite, externally a female, with testicles in the labia.

The child had the hair cropped short; it was of a sandy red color; the whole aspect gave one the idea more of a boy than a girl, and a stranger approaching the bed would naturally suppose it was a boy.

But the external organs were female; the vagina, nymphæ, clitoris, meatus, and hymen were normal—just the appearance they would have in a girl of nine years.

I was in great doubt, so I got Professors Leishman and Cleland to examine the parts along with me. Their impression was that the little bodies were ovaries, but how they had got into the labia it was difficult to understand.

After further observation, I became certain they were testicles; for on touching the skin on the front of the thigh they were immediately drawn up close to the inguinal ring, thus proving the existence of a cremaster muscle.

I therefore determined to excise one of the bodies, being satisfied that in either case it was justifiable and necessary. If it proved to be an ovary, the operation would remove it from a situation where at the period of menstruation nothing but discomfort and trouble could be looked for. If a testicle, it was even more necessary; for the approach of puberty in a male, with all the external organs of a female, would have been attended with most complicated results. Morally as well as physically it was prudent to unsex the person, so far as that can be done by removing the most characteristic sexual organs.

On the 24th of November, 1884, the patient was put under the influence of chloroform, and I cut down into the left labium in exactly the same way as is done for the radical cure of hernia. The testicle was found in an unclosed tunica vaginalis, and was removed. The pillars of the ring being apart, two silver wire sutures were introduced, and the aperture closed.

The testicle proved to be perfectly normal. Professor Cleland was present, and examined it along with me. It was healthy and well developed, and rather larger than one of that age.

The wound rapidly healed.

Being quite convinced of the propriety of removing the other, this was done in the same way a few weeks after, and the parts are now quite healed.

During the time the patient was under the influence of chloroform, a complete examination of the external organs was made. Now we could see more definitely the perfectly normal condition of the clitoris, nymphæ, and meatus. The vagina extended the usual depth, but when the finger reached the extremity, instead of the os uteri there was a vertical septum, on each side of which was a little *cul de sac*, like a very small thimble. The only other condition dissimilar to the normal female organs was the existence of a narrow slit at each side of the meatus, large enough to admit the point of a probe.

The little *culs de sac* are probably the analogues of the cornua uteri; the little slits probably the orifices of the ejaculatory ducts.

The patient was brought in, and the members had the opportunity of observing the external organs. The testicles, which had been dissected by Professor Cleland, and preserved in spirit, were also shown.

The Treatment of Biliary Colic.

The *Dublin Journal of Medical Science* tells us that among the other purposes for which Kussmaul's procedure of washing out the stomach has been suggested, is biliary colic, due to impacted gall-stones. At a recent meeting of the Berlin Medical Society, Rosenthal reported two cases treated in this manner. One was that of a woman of thirty-three, who had been six months under his care with successive attacks of biliary colic, for which all the usual measures had been resorted to, morphine alone giving her relief. He then washed out the stomach, with a view to obtaining the sedative effect to which attention had already been called by Senator. As an apparent consequence, the vomiting, which had been troublesome, ceased. She returned almost daily to have the operation repeated, and on the fourteenth day she brought with her two gall-stones, each about as large as a hazel-nut. Since then she has had no recurrence of the symptoms. The second case was also that of a woman who suffered from very severe attacks of hepatic colic with obstinate vomiting, and after washing out her stomach for a few days, not only did the vomiting cease, but the stones were also passed. Rosenthal did not undertake to explain the *rationale* of this treatment.

Lemons in Bright's Disease.

Before the Medical Society of Otsego County, April 21, 1885, this subject was discussed. It was shown that patients who have the symptoms of the disease strongly marked not only in many instances live for a long time, but make an apparent recovery.

Dr. H. W. Boorn (A. M. C., '66,) cited the case of a man who had, as he thought, all symptoms of the disease last autumn, his urine under heat showing that it consisted almost wholly of albumen. This patient having a desire to eat lemons, began eating them to an extravagant extent, eating as many as six or eight a day. "At the present time he is about his business as a small peddler, and his urine examined this day shows no albumen whatever."

Tannate of Cannabine.

In the *Therapeutic Gazette*, Dr. H. C. Wood says that he has to thank Mr. Merck, of Darmstadt, for some grammes of the tannate of cannabine, whose alleged hypnotic virtues he has thus been able to test. It is evident from the dose which is habitually given of this drug that it does not represent the activity of the cannabis indica as has been claimed for it. An active preparation of the cannabis is efficient in doses of a fraction of a grain. He has given of the tannate to a number of patients twenty grains a day, and has not been able to perceive any distinct effect other than in some cases slight drowsiness, and in one or two cases of chorea an apparent lessening of the movements. The powder is readily taken in doses of ten grains; and, possibly, given in very large amount might have some feeble soporific influence. No disturbance of the stomach or bowels or other symptoms were produced by it.

Special Report.

OPHTHALMOLOGY.—NO. XIX.

BY CHAS. S. TURNBULL, M. D.,
Of Philadelphia.

On Cocaine and its Use in Ophthalmic and General Surgery.

By H. KNAPP, M. D., Arch. Ophthal., Vol. xii., No. 384.

"No modern remedy has been received by the profession with such general enthusiasm, none has become so rapidly popular, and scarcely any one has shown so extensive a field of useful application as cocaine, the local anæsthetic recently introduced by Dr. C. Koller, of Vienna. I am convinced that it will not only continue to prove as valuable as it has hitherto been found, but that its properties will be the subject of numerous scientific researhes and clinical observations all over the globe for many years to come." * * *

"I have cauterized the cornea with the nitrate of silver stick until it became milky-white. During all this the animals did not move. The last experiment convinced me that the anæsthetic involved the whole thickness of the cornea, and did not affect the surface only. But if I incised the cornea, the animals manifested intense pain when the aqueous humor escaped and the iris prolapsed." * * * * * * * *

"The pupil is never *ad maximum* dilated, responds promptly to light and convergence during the whole time, and for that reason the sensation of dazzling, connected with atropine mydriasis, is either totally absent or only slightly pronounced.

"From the beginning I have thought that therapeutically cocaine might be used in two directions: First, as a *narcotic in painful affections of the*

eye, and secondly, as an *anæsthetic in operations on the eye*. In regard to the first category, I have expected a good deal of benefit from its action in *diseases* of the *cornea* and *conjunctiva*, accompanied by *pain* and *photophobia*. I have used cocaine in a great number of patients suffering from lymphatic (phlyctenular) conjunctivitis, with eruptions and ulcers of the cornea, and a two per cent. solution in one patient affected with frenulum vasculare (from successive phlyctenulæ). All patients thus treated have said that a few minutes after the instillations they have *felt* materially better, pain and photophobia having considerably diminished. With the same unanimity, however, they have complained that two or three hours after the instillation pain and photophobia have returned. In regard to the second category, cocaine does excellent service in the *removal of foreign bodies from and out of the cornea*. With the same good result cocaine has been used in a case of pterygium, cauterization of corneal ulcers, staphyloma operation, extraction of cataract, iridectomies, enucleation, etc., etc."

Höltzke. *Experimental Investigations on the Pressure in the Anterior Chamber*. Arch. f. Ophth., vol. xxix., 2.

According to Höltzke, eserine can produce a marked increase of pressure in the anterior chamber, but the myosis caused by it not only neutralizes this increase, but even diminishes the pressure below the physiological mean.

Atropine does not directly increase the pressure, but indirectly, by dilating the pupil.

Lefranc. *Contribution à l' étude de la lumiere et de la chaleur considérée comme causes de maladies des yeux chez les verriers principalement*. These de Paris, 1883.

He concludes from his investigations in glass manufactories that intense light and heat are not injurious to healthy eyes ; only to previously diseased ones. Adaptation and the kind of flames (in melting glass, yellow) play an important part.

Moura. *Brazil, La tension intraoculaire dans les races blanche-métisse, noire, et de indigiéne*. Ann. d'Ocul., March and April, 1883.

He finds that under physiological conditions the intraocular pressure is much higher in negroes than in whites. They are therefore three to four times more predisposed to glaucoma. The field of color perception is greater in natives than in whites.

Gillet de Grandmont. *De l' action des courants électriques continue appliqués au voisinage du cerveau et des résultats qu' ils produissent en particulier dans l'œil*. Gaz. d'Ophth., April and May, 1883.

He has investigated the action of the descending constant current on the vascular system, the subject of experiment being the frog's tongue spread under the microscope. During the action of the current the arteries enlarged and the blood flowed perceptibly faster.

Voltolini. *The Electro-magnet in Ophthalmology*. Deutsche Med. Wochenschr., 1883, No. 20.

Voltolini first makes the chip of iron magnetic by applying a very powerful electro-magnet to the eye, and extracts it with a smaller one. If the strong magnet can move the foreign body in the eye, an incision only is made, and the chip drawn to the surface with the magnet.

Zahl. *The Usefulness of the Magnet in Removing Chips of Iron from the Interior of the Globe, and Report of a Case*. Inaug. Diss., Greifswald, 1883.

In thirty cases the electro-magnet was used to the greatest advantage ; in three, blindness ensued. In ten cases the globe had to be enucleated ; either the operation had failed, or because the eyeball became inflamed or had shrunken after the removal of the chip of steel.

Stricker. *The Light-perceiving Apparatus of the Retina*. Sitzug. der K. K. Ges. d. Ærzte in Wien, March 30, 1883. Wiener Med. Presse, No. 14.

Stricker found a very peculiar condition of things in a tiger and leopard. The layer of rods and cones was entirely wanting, its place being taken by a broad granular layer. The animals had seen well during life.

Emery Jones. *The Effect of the Electric Light on the Eye*. Ophth. Rev., vol. ii., April 18.

Observed inflammation of the eye due to electric light.

Moyne. On the examination of *The Acuteness of Vision and Color-sense in Railway Employees and Sailors*. Annal d. Ottal., vol. xiii., Part 1.

Did not discover a single case of congenital Daltonism amongst 150 railroad employees, while in the same men he discovered ten cases of acquired Daltonism after the abuse of alcohol and tobacco.

Techerning's results—Studies on *The Etiology of Myopia*. Graefe's Arch., Band. xxix., 1, page 201—are based upon the examination of 9,567 persons, 7,523 belonging to the military recruiting contingent, and 2,044 being observed at Hansen's clinique in Copenhagen. In his opinion there are three varieties of myopia, the first of which, the weakest degree, is either congenital or acquired up to the age of twenty-five. For this form there does not appear to be any special cause, neither close work of the eyes, nor diseases within the eye, although there may an hereditary dispos-

tion. Vision is generally good, and the fundus of the eye is either entirely normal or exhibits a very small crescent. The second form is the re-result of close work, and is especially frequent amongst the educated classes. It very rarely reaches 9 D. ($4\frac{1}{2}''$), and averages about 4 D. ($9\frac{1}{2}''$) The third form, which fortunately for the human race is rare, must be looked upon as a genuine disease. In this class are included those excessive degrees of myopia, higher than 9 D., ($4\frac{1}{2}''$), which are scattered with great uniformity amongst all classes of people, without any especial regard to their occupation. These form at the highest about one per cent. of the population. This type depends evidently and always upon elongation of the ocular axis; those extremely large myopic eyes occasionally observed during autopsies, belong to this category. In this class heredity plays a rôle, although perhaps less than in other forms of myopia. As a rule, it appears at a very early age, and advances so rapidly that by the time the patient has reached his twenty-fifth year 9 D. ($4\frac{1}{2}''$) has been passed. It is a disease *sui generis*. Myopia caused by reading is benignant, and appears to be nothing but an accommodation of the eye to its work. It is extremely doubtful whether any dangerous myopia can develop itself from this latter class.

Reich, M. Alterations in *the refraction of eighty-five scholars observed during a period of six years*. V. Graefe's Archiv, Band xxix., 2, page 73.

Reisch had examined 145 high-school scholars some six years previously, and now had an opportunity of re-examining eighty-eight of them. While, in 1876, the emmetropes composed thirty-five per cent., the myopes twenty-five per cent., and hypermetropes thirty-six per cent. of the whole, he now discovered forty-three per cent. of emmetropes, fifty per cent. of myopes, and three and four-tenths per cent. of hypermetropes. The remainder suffered from amblyopia. The most notable points were that out of thirty-two cases of hypermetropia twelve had become myopic; of thirty-two emmetropes fourteen had become myopic, while of twenty-two myopics, eighteen had become more strongly myopic. The ophthalmoscopic examination had shown twenty-four per cent. of crescent six years ago, while at the re-examination the percentage had increased to sixty.

Mittasch. *The Syphilitic Diseases of the Eyelids*. Inaug. Dissert., Würzburg, 1883.

Mittasch describes the syphilitic affections of the eyelids. He first mentions the syphilitic initial sclerosis. Indurated chancre of the lids is of very rare occurrence. Its favorite locality is at the inner canthus. The infecting ulcer either arises from the outer skin of the eyelids, and subsequently attacks the lachrymal caruncle and plica semilunaris, or vice versa. Amongst the secondary syphilitic affections of the skin of the lids, the slighter forms of the exanthema generally form a partial symptom of the general eruption upon the skin.

Bock. *The Transplantation of the Skin and Mucous Membranes in Ophthalmic Surgery*, Vienna, 1884.

Bock publishes the results which have been obtained in Stellwag's clinique in cases of transplantation of skin flaps without a pedicle. This operation was performed in every case in which the aim of the surgeon was to compensate for losses of substance in the adnexa of the eye or to cure deformities, when the simple shifting of flaps did not suffice. In doing this, both external skin-flaps and flaps of mucous membrane were transplanted. The transplantation was performed after the extirpation of neoplasms on the lids in cases of malformation of the lids, but chiefly in cicatricial ectropium, as well as in cases of symblepharon and cicatrices of the conjunctiva. In almost every case the skin was taken from the left arm of the patient, but as little as possible of the subcutaneous tissue left with it. The flaps were divided into small pieces, and several were used to cover the defect, because they could be much better adapted to the new surfaces, and accommodated themselves better to the form of the loss of substance. Defects in the mucous membrane were compensated for by bits of mucous membrane from the vagina. The latter were, however, invariably transplanted in toto, since small pieces were easily and rapidly thrown off from the conjunctival sac, or, at least, completely disarranged by the nipping together of the eyelids.

Bock. *A Case of Sarcoma of the Lachrymal Gland*. Wiener Med. Presse, 1883, No. 33.

Bock observed on the left upper eyelid of a healthy man a tumor which extended from the middle orbital margin to the external canthus. The tumor was not connected with the globe, and could be moved about independent of the lids. On everting the lid, the growth protruded from the upper conjunctival fold in the shape of a bright red mass as large as a bean. It was extirpated, and under the microscope was discovered to be a small-cell, round-cell sarcoma, together with remnants of infiltrated tissue of the lachrymal gland.

Harlan. *Sarcoma of the Lachrymal Gland*. Transactions Amer. Oph. Soc., 1882.

Harlan has also seen a tumor of the lachrymal gland as large as a hen's egg. This, also, proved to be a spindle-cell sarcoma.

Alterations of the semi-lunar fold of the conjunctiva and of the adjacent lachrymal caruncle have hitherto been rarely mentioned.

Eversbusch. *On Some Alterations in the Plica Semilunaris.* Munich, 1883.

Eversbusch describes a cartilaginous formation and an angioma of the plica semilunaris, as well as hypertrophy of the same, which depended upon syphilitic infection.

Hoadley, Garb. *Hemorrhage from the Nose and Lachrymal Canal.* British Med. Journal, April 14, 1883.

Saw a case of epistaxis demanding an anterior tampon, after violent coughing, by a man who had heart disease. Two hours later the blood escaped from the right canaliculus.

Hock. *Traumatic Cyst in the Lachrymal Region—Extirpation—Cure.* Report of his private clinique, Vienna, 1883, p. 15.

Removed from the region of the right lachrymal gland a cyst as large as a walnut, which evidently originated from a blow from a horse's hoof, which disfigured the entire neighborhood, and produced persistent lachrymation.

Paralysie Simultanée des deux Moteurs Oculaires Communs par Nicotisme. Rec. de' Ophth., tom. iii., 6, p. 309.

A man who had smoked excessively for a long time, and of late had drank a large amount of alcohol, consulted Fontan, who discovered that suddenly one morning, just after arising, the patient had perceived a paralysis of the rectus internus of the right eye, and in the left eye a paralysis of the levator palpebræ, rectus superior, internus inferior, and obliquus inferior. The nerves of the sphincter iridis did not appear to be paralyzed on either side, but they were partially irritated, for the pupils were remarkably contracted when the patient looked at the light, while if a shadow was thrown over them they did not enlarge to any great extent. A diminution in the amount of tobacco smoked was followed by a decided improvement. Fontan expresses the opinion that the chief cause of the paralysis was the abuse of tobacco, while to the alcohol he attributes an inferior influence.

"Is contraction of the pupil, which has been repeatedly noticed without any explanation (Claude Bernard, Carîe) in paralysis of the third pair, a satisfactory symptom in the diagnosis of nicotine poisoning? I believe that we should pay considerable attention to this point, and that new facts will satisfactorily solve this interesting question."

Westphal's Investigations, (*On Total Paralysis of the Ocular Muscles in the Demented*, Fahreszeitung des Vereins der Irrenærzte, Berlin, 1883,) demonstrate in the insane, and especially in paralytics, a progressive form of paralysis which attacks all of the ocular muscles, and finally leads to total fixation of the globe. The ophthalmoscope generally shows atropic degeneration of the optic papilla. Disturbances are also noticed in other motor nerves.

Gutmann, (*Diabetic Abducens—Paralysis.* C. F. A., 1883, p. 209), publishes a case of paralysis of the abducens in a diabetic patient. The symptom disappeared entirely after visiting the Carlsbad Springs.

(*To be continued.*)

CORRESPONDENCE.

An Almost Painless Mode of Introducing a Catheter where there is a Hyperæsthetic Condition of the Urethra.

EDS. MED. AND SURG. REPORTER:—

This consists in introducing the nozzle of an ordinary male urethral syringe (previously filled with water as warm as the patient can bear) into a soft catheter, and injecting the water slowly as the catheter is gently passed along the urethral canal.

If the bladder is not entered by the time the first syringeful is exhausted, refill the syringe and proceed as before.

You will find that the water will regurgitate between the catheter and urethral wall till the catheter has reached the prostatic portion, thus lessening the danger of injecting too much water into the bladder.

My experience with this method is very limited, yet it has proved very successful in the few cases I have had, and as I have never seen an account of it in any medical works or journals, I submit it to the profession for a trial and report of its success. The following is a case showing its value:

J., æt. 20, male, of nervous temperament, suffering from cystitis (the result of a gonorrhœa of several months' standing), which was attended with all the suffering characteristic of this trouble, and with an abundance of pus, mucus, blood, and heavy deposit of the phosphates in his urine.

He had to micturate every twenty or thirty minutes, both day and night, and had been so for two months, so I concluded to wash out his bladder; but on attempting to introduce the catheter, (which was a soft rubber one), I found the pain so intense as to cause spasm of the sphincter vesicæ, thus rendering all efforts at entering the bladder fruitless. The thought then occurred to me, that by injecting warm water and putting the urethra slightly on the stretch, I could pass the catheter; so I procured the syringe and again started the catheter, keeping a steady flow of water

playing on the urethra, and very much to his comfort and my satisfaction, I succeeded in entering his bladder without causing, as he stated, the least pain. JNO. A. STAMPS, M. D.,
Wallaceburg, Ark.

A Twin in Bad Company.

EDS. MED. AND SURG. REPORTER:—

In March, 1883, I was called to attend in confinement Mrs. Y. I was at the bedside probably two or three hours. The presentation was good (first) and the labor apparently normal. When I asked the lady if she had felt *motion* since her labor began, she replied that she had, and that very *distinctly*. I generally ask this question (I presume the doctors all do), so that in case I get a dead baby I may, if possible, have some evidence that the child was dead before I was called to the case. I was very particular on this occasion about this matter, because it was their first child, and they had a morbid dread lest it should be still-born. When the child arrived, I found it limp, motionless, and silent as is Julius Cæsar to-day. On taking it from under the bed-clothes, and to the light, I found it rather smaller than it should be, very dark in color, and somewhat putrid, the skin being readily detached by slight pressure with the fingers. The mother wanted me to explain how she could have been so terribly deceived when she thought she felt motion. I promptly "gave it up." On attempting to remove the placenta I found *another child* in utero, which was born a few minutes later, and was alive and healthy.

This little individual, then, had completed the latter part of the journey of fœtal life with a human carcass for a bosom friend and traveling companion. When I thought how tenaciously he had clung to life's fitful spark, I admired his pluck, and wished that *always* hereafter if the child was dead-born, I might still find a *reserve* child in utero. WALTER H. PARCELS, M. D.
Lewistown, Pa.

NEWS AND MISCELLANY.

International Sanitary Conference.

We note the following special report from the *Brit. Med. Jour.*, June 13, 1885:

The report of the sub-committee appointed to consider the best methods of disinfection in cholera, and consisting of Drs. Koch, Sternberg, Thorne Thorne, Proust, Eck, Semmola, and Von Hofmann, was laid before the Technical Committee at the sitting of June 2. It is thus worded:

The sub-committee recommends as methods of disinfection:

1. Steam at 100° C.
2. Carbolic acid and chloride of lime.
3. Ventilation.

Of the carbolic acid and chloride of lime, two solutions are to be used: *a.* the weak, containing two per cent. of carbolic acid and one per cent. of chloride of lime; *b.* the strong, containing five per cent. of carbolic acid and four per cent. of chloride of lime. They are to be applied as follows:

1. For personal disinfection, by washing and bathing with the weak solutions.

2. For disinfection of linen, clothes, bedding, etc., if not destroyed—(*a*) by passing steam through them for an hour, (*b*) by boiling them for thirty minutes, (*c*) by immersion for twenty-four hours in one of the weak solutions, (*d*) by ventilation for three or four weeks, but only in cases in which none of the other methods are applicable. Leather articles—such as portmanteaux, handbags, etc.,—if not destroyed, are to be washed several times with one of the weak solutions.

3. For vomited matters and fæcal evacuations, the strong solutions are to be used. Recently-soiled articles of linen, clothing, and bedding, if not at once subjected to steam at 100° C., are to be immersed for four hours in one of the strong solutions.

4. There must be no washing of corpses. Bodies are to be wrapped up in sheets saturated with one of the strong solutions, and at once put in coffins.

5. Disinfection of goods, letters, and postal packages is superfluous.

6. For the disinfection of ships during the passage: The deck and class where the case or suspected case occurred, and the walls of the cabin or bunk, are to be washed, at least twice, with one of the weak solutions, and then thoroughly ventilated; while the water-closets are to be washed, at least twice daily, with one of the strong solutions.

7. If the drinking-water be suspected, it must be boiled before being used; and if it has stood twenty-four hours after the first boiling, it must be reboiled.

8. In hospitals on land, the walls are to be washed with one of the weak solutions, then the wards ventilated, and finally whitewashed, and the wards used for the reception of cholera cases are to be as far off as practicable from the ordinary ones. The closets in such hospitals are to be cleansed twice daily with a quantity of one of the stronger solutions equal in amount to that of the evacuations passing through them.

9. The clothes of the attendants are not to be taken out of the hospital, and must be regularly disinfected; and the attendants are to use one of the weak solutions for personal ablution.

It was also decided to add to those recommendations another, to the effect that all packet-boats from infected ports should have a steam-disinfecting apparatus on board.

In the discussion which followed the reading of the sub-committee's report, a number of the members took objection to the omission of various powerful disinfectants from the list recommended. The Dutch delegate, Dr. Ruysch, warmly insisted on the efficacy of corrosive sublimate, and one of the French delegates on that of sulphate of copper and sulphurous acid; whilst others maintained that no particular disinfectant was of any great utility, and that the Technical Committee should not, in the present state of knowledge, commit themselves to any definite recommendations. It having been pointed out by Dr. Koch and Dr. Sternberg that the report did not definitely exclude any one disinfectant, but was simply based on the necessity for naming simple, cheap, and readily transportable chemicals, not

too complicated nor too dangerously poisonous, Sir Joseph Fayrer moved the adoption of the report, and this was carried.

The sitting on June 3, which was occupied with the recommendations of the sub-committee on the measures to be taken on the arrival of suspected or infected vessels at their destination, and also on the measures to be taken when the disease was imported into the Mediterranean, unfortunately proved completely abortive, all the regulations of the sub-committee being rejected, and the matter referred for reconsideration to the members of that sub-committee, with the substitution of Drs. Koch and Baccelli for Sir Guyer Hunter and Dr. Sternberg, who had resigned.

The regulations proposed by the sub-committee on pilgrimages to Mecca came before the Technical Committee on June 4, and were discussed at great length, in spite of an attempt by Sir Joseph Fayrer and Dr. Ruysch, in the beginning of the sitting, to have them approved as a whole.

After some general recommendations as to the necessity of no passenger being permitted to embark for a pilgrimage to Mecca, who was unprovided with the necessary means; as to the presence on board of one or more surgeons appointed by the government of the country whence the pilgrimage proceeds; and as to all ships being held to be pilgrim ships which carried thirty or more pilgrims; power is given, in the report, to the surgeon to see to the disinfection of his ship before it leaves an infected port, and that quite apart from the inspection of the port health officer; to prevent any persons coming on board who are ill, or who he suspects are ill with cholera; to rigorously reject all clothing and bedding which have been used for cholera patients; and to attend to the disinfection of such articles if proceeding from a cholera-infected district. The ship's surgeon and the port health officer are to have powers to prevent overcrowding. On steamboats the 'tween-decks must have at least nine feet of surface, or fifty-four cubic feet, and on sailing vessels, twelve feet of surface, or seventy-two cubic feet of space, for each pilgrim. During the passage from an infected port, the surgeon must enforce the same sanitary measures in pilgrim ships as already determined on for ordinary passenger boats, and, in general, all the measures adopted by the Indian Government relative to the embarkation and transport of pilgrims from Indian ports to the Red Sea are recommended for application by other countries whence pilgrimages set out. It is also proposed, after a rigorous sanitary inspection of such a pilgrim ship at a sanitary station before its entry into the Red Sea, and after the surgeon has certified that all the hygienic rules prescribed have been rigidly observed, and that no death, nor case, nor even suspected case, of cholera has occurred on board, and after this has been confirmed by the visit twice within twenty-four hours of the health officer at the sanitary stations, that the ship shall be permitted to proceed at once to Jeddah. Should cases, or even merely suspected cases, of cholera have occurred on board, the same measures would be taken for the pilgrim ships as were passed for infected passenger vessels carrying surgeons and entering the Red Sea; and although a longer than five days' observation of the isolated and segregated groups of passengers and crew was strenuously advocated, the period of five days was accepted as sufficient by the majority. At Jeddah another inspection will be made, and free *pratique* granted after twenty-four hours' observation, if the vessel have remained clean; but if cholera has broken out on board after the ship has entered the Red Sea, it is at once to be sent back to the sanitary station at the entrance, to be dealt with there according to the rules previously laid down. Exactly similar regulations are to apply to pilgrim ships, both from Egypt and the Mediterranean, and on the return voyage, as now passed for the Indian pilgrimages; but the exact spots for establishing the sanitary stations are left to the plenary conference.

The Committee then dealt with the measures to be adopted against suspected and infected vessels at the ports of arrival. For suspected vessels—that is, those from infected ports—after a careful sanitary inspection, during the daytime, by the health officer of the port, free *pratique* will be at once granted, should all the sanitary regulations prescribed have been observed both at the port of departure and during the passage, and provided the ship's surgeon show a clean bill of health, and the passage has lasted ten days; but twenty-four hours' observation will be enforced if the voyage have been shorter than ten days, to permit the disinfection on board of the dirty linen and clothes of passengers and crew. For infected vessels, the more radical measures recommended are landing and isolation of the sick; separation of the passengers and crew into as many small groups as possible; washing and disinfection of all articles of linen, clothing, and bedding; keeping under observation of each group for five days' time from the removal from amongst the members of the group of any case; and, in addition, the bathing of each person in one of the weak disinfecting solutions, and the providing him with freshly-washed linen just before he is permitted to depart.

For suspected vessels proceeding from an infected port in the Mediterranean, a somewhat modified set of rules was adopted; the passengers and crew being disembarked, at the ports of arrival, in a locality so constructed as to afford absolute security for their isolation and disinfection; and being subjected there to an observation of three or six days, according to whether the vessel did or did not carry a surgeon. The more irreconcilable members naturally opposed these resolutions, which were only adopted by feeble majorities. For infected ships from Mediterranean ports, it was resolved to recommend the same measures as for such vessels coming from infected ports elsewhere.

The final sitting at which any work was done by the Technical Committee was held on Saturday, June 6th, when the general proposals of the sub-committee on the measures to prevent cholera spreading by land were considered. Previously to their being so, however, the British and Indian delegates, by special request, showed how trustworthy and practical was the system which Great Britain relied on to protect her from epidemic invasion, instead of the quarantine, which she had abandoned.

Dr. Thorne Thorne, after alluding to the general

idea prevailing abroad, that Great Britain had given up the quarantine system simply from the selfish motive that her enormous commerce was too much hampered by it, pointed out that, since the date of the Vienna Conference, England alone had spent twenty-seven millions of pounds on the improvement of local sanitation, and that this enormous expenditure had been repaid her, not only in her having escaped from epidemic invasion by cholera, but in the great diminution of loss of life from such endemic diseases as depended on local unsanitary conditions, such as typhoid fever; and he maintained that this would not have been the case had she continued, like other nations, to trust to quarantine. It would be a bad day for England, should she ever come to think that a period of five days' observation could be of the same value to her as that improvement in local hygiene on which she now confidently relied to prevent a cholera epidemic from taking root on her soil.

Sir Joseph Fayrer urged that the same measures for the improvement of local sanitation, which had been so successful in Great Britain, when applied in the three great Indian presidencies. had much diminished the general mortality, as well as the special cholera death-rate, throughout our large dependency; and that there was no other cause to which the greater healthiness of India could be ascribed, as the seasonal conditions were unchanged.

Sir W. Guyer Hunter referred to similar information already placed before the members of the committee by him at previous meetings, and contrasted the efficacy of the system of local sanitation, which had done so much to check the disease in India, with the proved total uselessness of quarantine and sanitary *cordons*, as lately tried in Egypt.

The committee then passed most of the regulations submitted to it by the sub-committee to prevent the spread of the disease by land, some of which are certainly too general to be of the slightest value. Thus it is recommended:

1. That local sanitation be everywhere attended to, and the first cases isolated and disinfected, the means for doing so being prepared beforehand by the sanitary authorities.

2. That immediate notification be made to the proper authorities of every case, or suspected case, of cholera, and the nature of the disease be confirmed by competent medical men, and, in case of death, by necropsy.

3. That a regularly organized medical sanitary service be instituted in every country.

4. That the health officers of every country should have powers to communicate directly, without intermediaries, so as to agree upon, and at once adopt, the measures they deem urgent.

5. Particular attention is always to be given to the great through routes by which cholera is imported.

6. International express trains must be changed in passing from an infected into a non-infected country, and a surgeon must accompany every such train, to take the necessary steps in the event of any one falling ill with the disease. Every large station is required to have an isolated room for the reception of such cases.

Dr. T. Lewis showed that this article was unnecessary, as the construction of the great trunk railways in India had not changed the lines on which cholera traveled in that country, nor increased the rapidity of its movements.

7. Passenger-boats on large rivers are to be rigorously inspected, overcrowding is to be prevented, and a medical inspection is to be made of those disembarking at the principal points of call, where isolated quarters are to be kept ready for the provisional reception of cases of illness.

Some other regulations, of less importance, for preventing the spread of the disease by land were also sanctioned, and the committee agreed, at the same time, that the measures for the Caspian Sea and the Russian Asiatic frontier should be identical with those already passed for protection against importation by sea and land elsewhere.

On the motion of Dr. Sternberg, it was also determined to apply to yellow fever the measures thought requisite against cholera, and the committee wound up its labors by passing some common-place rules, which are not worth citing, for notifying the leading features of disease in each country by special sanitary bulletins, and communicating to the separate governments, by telegraph and otherwise, the particulars of the appearance and extension of any contagious malady —a work performed for the public, in Great Britain and America at any rate, by their enterprising newspapers. Sir Joseph Fayrer having moved that Dr. Moleschott, as president, should report the results arrived at by the Technical Committee to Plenary Conference, and the usual votes of thanks having been agreed to, the members separated, to enjoy a few days' well-earned rest, to be spent, at the invitation of the government, in visiting Naples and its neighborhood.

Collective Investigation in Russia.

A meeting of delegates from the different medical societies has been held in the Red Cross Hall, in St. Petersburg, for the purpose of organizing collective investigation in Russia. The question arose as to whether it would be better to establish an independent central committee in Russia, or to send the individual reports direct to the International Committee in London. The meeting unanimously decided in favor of the former alternative, on account of the difficulty of entering into an extensive correspondence in a foreign language. The meeting consequently resolved itself into the Collective Investigation Committee for Russia, and arranged to keep up communication with the English Committee. Professor Lesshaft and Dr. Monastyrski were chosen as secretaries. Dr. Rauchfuss presented a report upon the results already obtained, and which had been published in the form of two little books, one dealing with phthisis, the other with acute pneumonia. It was decided that the next subjects for collective investigation should be those proposed by the International Committee, and with the same tables of questions, namely, rachitis, calculus, typhus exanthematicus, acute rheumatism, and diseases of the age of school attendance.

Massachusetts State Medical Society.

At the one hundred and fourth meeting of this

society held June 9 and 10, the following papers were read: "The Pathogenesis of Certain Skin Affections," by Dr. George N. Tilden, of Boston. "Consanguineous Marrrages: Their Effect upon Offspring," by Dr. Charles F. Withington, of Roxbury. "Labor Complicated with Fibroids," by Dr. J. R. Chadwick. "The Climatic Treatment of Phthisis," by Dr. Harold Williams, of Boston. "How a Lesion of the Brain Results in that Disturbance of Consciousness known as Aphasia," by Dr. Morton H. Prince, of Boston. "The Relation of Insanity to Certain Nervous Affections," by Dr. Henry R. Stedman, of Roslindale. "Cremation in its Sanitary Aspects," by Dr. John O. Marble, of Worcester. "Diagnosis and Treatment of Occipito-posterior Positions," by Dr. William L. Richardson, of Boston. "The Influence of Ovariotomy on Surgery," by Dr. John Homans, of Boston. "Antiseptic Surgery," by Dr. Franklin K. Paddock, of Pittsfield.

A Terrible Epidemic of Cholera in India.

The *Indian Daily News*, under date of May, tells us that the intense heat has caused a terrible outbreak of cholera at Pegu.

Near Rangoon the natives employed on the railway works are dying by hundreds, and they cannot bury the corpses fast enough.

Three at a Birth.

The *Bangalore Post* says: "A correspondent informs us that a woman named Mooniamah, of the shepherd caste, living in Cubbon Patta, near Yelavanka Gate, Bangalore, gave birth to three children on Tuesday, the 29th of April, at 7 a. m., one of whom is a male and the two others females. They are all alive up to date (May 1)."

Items.

—Dr. Edward Cowles, Superintendent of the McLean Insane Asylum, at Somerville, Mass., is to give a course of lectures on Mental Diseases at Dartmouth Medical College next autumn.

—Three Parisian manufacturers, in order to make tomatoes appear redder than nature has made them, varnished them with a chemical compound, and called them "the best quality tomatoes." They have been condemned to pay a fine.

—At its last meeting the Paris Faculty of Medicine decided that the prize founded by M. Lacaze, of the value of 11,400 francs, and which is given every two years, will next be awarded in 1886, to the author of the best work on Phthisis and Typhoid Fever.

—Whenever a case of scrofulous disease was presented at his clinic, in the person of a child *whose father had been in the army*, the late Professor Gross, asking no further questions, would turn to the class with the single, but significant remark, "*Specific*, gentlemen!"—*Col. Med. Jour.*

—The report of the Society of Hygiene of Milan draws attention to the influence of old shoes as a means of propagating cholera. When a person treads a soil more or less damp in a locality infected, there is every chance of his conveying the germs in the manner described.

—News comes from Marseilles of a sad occurrence in the Saint Pierre Lunatic Asylum. A keeper put two patients each in a separate bath, left them, and went to breakfast. One of the lunatics got out of his bath, during the absence of the keeper, and turned on the tap of hot water into the bath of the other. When the keeper returned, he found that the unhappy creature had been scalded to death.

—A mixed commission of twenty-four persons, made up of physicians and pharmacists, has been constitued at Berlin with the object of taking steps to prevent the further extension of the patent medicine trade in that city. At the first meeting a resolution was moved to petition the chief board of police in Berlin (Konigliches Polizei Præsiduum) to follow the example set by corresponding boards in Frankfort-on-the-Main and Carlsruhe, in publishing from time to time in the daily papers popular instructive articles on the subject of patent medicines.

OBITUARY NOTICES.

EDWARD HARTSHORNE, M. D.

Dr. Edward Hartshorne died in this city, June 22, in the 68th year of his age. The cause of his death was Bright's disease. Dr. Hartshorne was born in this city May 14, 1818, was a son of Dr. Joseph Hartshorne, and was a leading practitioner of Philadelphia for nearly fifty years. He was a graduate of Princeton, and received his degree of M. D. from the University of Pennsylvania. He was connected with the Pennsylvania Hospital for the Insane as first assistant physician when that institution first opened. Dr. Hartshorne has been prominently identified with the management of the Episcopal Hospital. He was a large contributor to the various medical journals, and was the author of several of the annual reports of the Episcopal Hospital, and editor and annotator of various English medical text-books, among them "Taylor's Medical Jurisprudence." During the war he was actively engaged as acting assistant surgeon in the army, serving to some extent in the field, but most of the time as consulting surgeon in army hospitals in this city. He was a member of the American Philosophical Society, Academy of Natural Sciences, the Historical Society of Pennsylvania, and other kindred associations. He was a most active and useful member of the College of Physicians. He was also for a long period medical adviser and examiner to one of our leading insurance companies, and for some time was one of the Vice-Presidents of the Princeton Alumni Association of Philadelphia. The profession, in his death, sustains the loss of a good, true, and honorable man.

QUERIES AND REPLIES.

MESSRS. EDITORS:—

Dr. I. G. Cunningham, of Kittanning, Pa., can find t formula in MEDICAL AND SURGICAL REPORTER, vol. XXXV p. 82 (January 27, 1877); beyond that I cannot help him.

W. PENNINGTON, M. D.

Baskingridge, New Jersey, June 8, 1885.